









**RESOURCE CONSERVATION AND RECOVERY ACT  
AUTHORIZATION**

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**HEARINGS  
BEFORE THE  
SUBCOMMITTEE ON  
TRANSPORTATION AND COMMERCE  
OF THE  
COMMITTEE ON  
INTERSTATE AND FOREIGN COMMERCE  
HOUSE OF REPRESENTATIVES  
NINETY-SIXTH CONGRESS  
FIRST SESSION  
ON  
AUTHORIZATION ON THE RESOURCE CONSERVATION AND  
RECOVERY ACT OF 1976**

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**MARCH 27 AND 28, 1979**

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**Serial No. 96-31**

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# RESOURCE CONSERVATION AND RECOVERY ACT AUTHORIZATION

TUESDAY, MARCH 27, 1979

HOUSE OF REPRESENTATIVES,  
SUBCOMMITTEE ON TRANSPORTATION AND COMMERCE,  
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,  
*Washington, D.C.*

The committee met at 9 a.m., pursuant to notice, in room 2322, Rayburn House Office Building, James J. Florio, chairman, presiding.

Mr. FLORIO. These hearings will come to order. These are the first of 2 days of authorization hearings on the Resource Conservation and Recovery Act of 1976. The act encompasses a number of major areas. The first day we will deal with the "cradle to grave system of regulations dealing with hazardous wastes." Other portions of the bill will be dealt with tomorrow; namely, the solid waste management planning program by States and the encouragement and stimulation of resource recovery technologies and markets for recovered materials. Today we will be dealing with subtitle C, the hazardous waste provisions of RCRA. The issue of safe management and disposal of hazardous wastes has received entirely too little attention in this Nation.

Our purpose is to assess the effectiveness of this law as it is now written and to examine the need for amendments to tighten and streamline the regulatory framework.

This subcommittee is aware that the present act contains certain gaps and deficiencies which deserve our attention. One of our main goals will be to work on amendments which will fill these gaps and strengthen areas of the acts needing improvement based on what we learn. Additionally, it is vital that in this Congress we address the potentially threatening conditions posed by the irresponsible management of hazardous waste disposal sites now described as inactive or abandoned.

Although a site may be described as inactive or abandoned, the damage to human health and to the environment has been known to be extremely devastating. In addition to not dealing with the issue of inactive sites, RCRA does not outline the means for choosing future sites, an issue of growing concern in our Nation's communities and one which this committee expects to deal with throughout the course of this year. Rest assured future hearings will be held by this subcommittee to address these other issues.

These reauthorization hearings are intended to provide the Congress with an opportunity to assess the effectiveness of this act and to examine EPA's programs and its implementation thereof. It forms the basis for determining the appropriate levels of support for each program activity.

I would like to note that, in addition to the information gathered during this hearing, the subcommittee will take the opportunity to submit specific requests for other detailed information to EPA.

I would also like to note that the subcommittee would be happy and pleased to receive testimony from those unable to testify here today.

We would ask that all of the witnesses, and we do have an extensive group of witnesses, appreciate the fact that the subcommittee has received testimony in full. The chairman has personally gone over all of the submitted statements in detail and asks that each of the witnesses be prepared to summarize their testimony for approximately 10 minutes. Your cooperation will expedite business and also provide the maximum opportunity for the gathering of information necessary to serve this committee's formulation of legislation.

We are proud and honored to have as our first witness Congressman John LaFalce, who has fortunately derived a great amount of expertise on this subject because of circumstances which now exist in his district. I have been in contact with Mr. LaFalce and have seen some of his legislative initiatives.

We are proud and pleased to welcome you, Congressman, to the committee and appreciate your providing us with the benefit of your experience and your suggestions with regard to improving the law.

#### STATEMENT OF HON. JOHN J. LaFALCE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mr. LaFALCE. Thank you very much. It is a pleasure for me to be before you and the subcommittee, both of whom have shown tremendous leadership, both in the initial enactment of the Resource Conservation and Recovery Act and in its oversight.

At this time I would like to ask unanimous consent that the entire text of my remarks be introduced into the record.

Mr. FLORIO. Without objection, they will be introduced and made a part of the record.

Mr. LaFALCE. Thank you.

Then I will attempt to summarize the testimony.

Mr. Chairman, you, I believe, and members of the subcommittee are well aware of the horror story that exists within my congressional district at the Love Canal site and a number of other sites within the district where abandoned hazardous waste exists. I first became aware of this in 1977 and immediately began working with local residents, EPA, the State Department of Environmental Conservation, et cetera, and that resulted in an order on August 2, 1978 urging the relocation of what finally turned out to be about 239 families.

Subsequently, in February 1979, there was a second order at a site a bit further away where again the damages from toxic substances were evidencing themselves, toxic substances which had been buried some 25 or 30 years ago. The Love Canal, however, Mr. Chairman, is not unique. It is probably the most glaring example in the United States today of the tragedy which can come about through abandoned waste sites.



But the EPA has estimated there might well be 1,000 abandoned sites across the country which are imminent hazards to the health and welfare of the people of this Nation. EPA has also said there could be as many as 30,000 abandoned sites out there waiting to be identified. The cost of cleaning them up could be staggering. There are various estimates, \$20 billion, \$25 billion, maybe \$50 billion. It is difficult to really project with any degree of accuracy.

Suffice it to say the Love Canal price tag so far is approximately \$13 million to abate the leaching, clean up the environmental hazards, and temporarily relocate the affected families. And this figure does not include the permanent relocation costs that the State of New York has chosen to assume for all those living within the geographic scope of the August 1978 order.

It is because we have these abandoned sites and we know that they are potential time bombs that I believe we must act on the issue of abandoned sites during the reauthorization process. Abandoned sites, as you know all too well, are simply not covered by the 1976 RCRA authorizing legislation.

Mr. Chairman, I introduced a bill H.R. 1048, the Hazardous Waste Control Act. This would fill some of the gaps in RCRA which have become evident to me since its enactment 3 years ago. The bill could serve as a vehicle for discussion as you begin your markup process, and I commend it to you for that purpose.

It would amend RCRA by establishing a program for the identification, reclamation and monitoring of abandoned hazardous waste sites. It would set fees to be paid by private organizations which store or dispose of hazardous wastes, and it would provide a process for the selection of sites for future disposal of hazardous wastes. More specifically, it would mandate a concerted effort to identify all abandoned landfill sites that do or may contain hazardous wastes, a program which I am pleased to say is currently being conducted in my home State of New York.

Once they would be identified, they would be reclaimed if desirable and feasible. If reclamation is not feasible, they would be monitored to insure that public and environmental health and safety are not endangered. Fees would be collected for permit holding operators of hazardous waste treatment storage or disposal facilities.

Revenues from these fees would be placed in a reclamation and maintenance fund which would in turn be used in combination with State and Federal contributions to deal with abandoned sites.

Another provision in the bill establishes a contingency fund for emergency assistance and payment of costs to clean up hazardous waste situations which threaten the health of the general public. This portion includes an authorization for the Government to bring legal action against those responsible for such emergencies to recover the cost of cleanup operations.

My legislation would also deal with the question of where to locate new hazardous waste disposal sites, an issue not presently covered by RCRA. The Comptroller General, in a report to Congress published in January 1979, agreed with many of the concepts I have suggested for legislation to fill the gaps in RCRA. The report is entitled "Hazardous Waste Management Programs Will Not Be

Effective; Greater Efforts are Needed." It is, I believe, a careful analysis and agenda for action in this troubled area.

Before I discuss other legislative initiatives related directly to RCRA, I would like to take this opportunity to tell you about another bill I have introduced. It is not meant to be a part of the RCRA reauthorization process but it is relative to the problem of hazardous waste disposal and its effects on people. It could conceivably be incorporated within RCRA legislation or within superfund legislation.

The greatest tragedy of the Love Canal experience and most cases of chemical poisoning is that those who suffer physical injuries and other damages have no effective means of obtaining compensation for their losses. The lack of scientific and medical knowledge relating exposure to toxic substances with human illnesses, when combined with traditional proof requirements of our judicial system, almost preclude compensation for injured persons.

We have difficulties in proving causation. We have difficulty in knowing when to sue. Sometimes it is 25 years after the damage has begun to occur, and you have a statute of limitations requirement. There are a whole host of difficulties which make reliance upon our traditional legal precepts extremely difficult.

I have, therefore, introduced the Toxic Tort Act, H.R. 1049, to address some of these problems. My bill would accomplish the following objectives:

First, it would create a Federal cause of action for victims of toxic substances, permitting them to seek redress against negligent manufacturers.

Second, it would establish an independent board within EPA to compensate victims of pollution-related injuries regardless of fault. This agency would function in principle like a worker's compensation system.

Third, it would require EPA to study the relationships between exposure to toxic substances and human disease, and authorize EPA to make a "requisite nexus" finding. This finding would overcome the problem of proving causation with traditional proof requirements because it would create a rebuttable presumption of causality.

Fourth, it would modify the proof and time limitation requirements which claimants must meet in State workers compensation proceedings and in court actions permitting the use of the presumption based upon EPA's "requisite nexus" findings.

Fifth, it would subrogate EPA to the rights of the injured party, enabling EPA to seek reimbursement from negligent parties. But in the first instance, the parties would be able to go to the EPA. The EPA then, if there were fault on the part of the manufacturer or someone else, would be subrogated to the rights of the reimbursed innocent victim.

Now, on the subject of human illness from toxic substances, last Tuesday I appeared before Chairman Scheuer's subcommittee of this full committee and proposed an amendment to TSCA which would improve the Government's research into effects of toxic substances exposure. I am very happy to report to you that that subcommittee did adopt my suggestion this past Thursday.

The amendment directs the Council on Environmental Quality to conduct a comprehensive study on the compensation of victims of exposure to toxic substances, and it authorizes \$2 million to carry it out. I urge every member of this subcommittee to support this provision in the TSCA reauthorization bill when it is up for full committee consideration.

Other legislative initiatives which have been developed deal not only with abandoned sites, as my bill does, but also with existing and future sites. I would like to turn to them. It is my hope that these two prongs of the hazardous waste problem can be melded together along with funding concepts capable of dealing with both of them in a reasonable timeframe in one comprehensive package. Many proposals suggest that the only way to insure a sufficiently large fund with which to handle all environmental calamities, such as oil spills, hazardous waste spills and abandoned sites, is to develop an all-encompassing superfund.

This concept was raised during the 95th Congress by Senator Muskie. The Senate passed a bill including it, but the House rejected it.

I understand, Mr. Chairman, you are considering a similar proposal in the House this year. I have read a speech you recently gave entertaining that possibility, and I applaud you for your leadership on this issue. The administration position, however, remains unclear to me, unfortunately.

I am advised that EPA supports a superfund concept based upon the concepts in section 311 of the Clean Water Act, and their fund, would cover oilspills, hazardous waste spills, and abandoned waste sites. The Department of Transportation, with prime responsibility for oilspills through the Coast Guard, I believe, favors keeping a separate oil spill fund rather than having a fund for multiple purposes.

OMB, refereeing between these two, is awaiting the recommendations of a Justice Department coordinated task force due in May before developing a final administration position.

Knowing as I do, though, how difficult and potentially costly a problem we face in trying to mount an effective effort in the area of hazardous waste, I support the concept of a superfund to deal with a number of environmental calamities. I would suggest, however, that in structuring this superfund, we strive to achieve a number of goals rather than just raising the necessary funds without it becoming an undue burden on the Federal budget. My suggestion is based on my view that we ought to develop a truly comprehensive program to manage hazardous wastes, and to do so we ought to have a funding mechanism which not only generates sufficient revenue to do the job but which also encourages the private sector and others involved to keep future problems to a minimum.

The superfund concept generally uses a tax on oil or on both oil and natural gas as its revenue source. These are both appropriate, as oil and natural gas, in addition to being hazardous substances themselves, constitute primary natural resources in the manufacture of many chemicals and other dangerous materials.

But a broad tax on the natural resources alone would not achieve other goals which a funding mechanism can greatly help

with, such as conservation and therefore reduction of waste, recycling of hazardous waste into other manufacturing processes, thus reducing the quantity of waste to be handled otherwise reducing the amounts of waste to be handled, treated or disposed of, and reducing the toxicity of wastes which cannot be eliminated.

The Hazardous Waste Control Act, which I introduced, has in the funding mechanism at least one approach which would help meet these goals. This is the suggested fee to be paid by those who store or dispose of hazardous wastes. I am not wedded to that approach. There are many ways to achieve these same goals, and I put mine forth as one way for your consideration.

But I do feel that a fee system which derives its revenues from both the producers of the raw materials at the start of the production cycle and from those who dispose of the wastes at the other end can provide both needed revenues for a comprehensive program and desirable incentives to keep the dimensions of the problem to a minimum in the future.

So I would propose that you seriously consider combining the two revenue sources and then use them both through a superfund concept to deal with all these problems. I would also suggest that the States be asked to supply at least some minimum amount of funds needed to deal with problems within their borders, and I have initially suggested 10 percent. Perhaps 5 percent would be more equitable. I do think there should be some State participation, however.

We must also be careful that the program we devise in no way relieves past, present or future manufacturers or disposers of liability for negligence in dealing with hazardous substances. It is important that our actions find a proper balance between the need to encourage responsible entities in the private sector to take part in this disposal business and the need to insure that both victims and the Government be able to hold irresponsible or negligent parties accountable for their actions.

If we do create a superfund, then, it should be done in a way which permits the Government to step in, deal with the problem, and then seek reimbursement from those who caused the problem if negligence was indeed involved. This concept should apply to abandoned sites and to those future situations where, despite greater regulatory efforts to assure the safety and careful handling of hazardous materials, problems may nevertheless arise.

Mr. Chairman, Congress has also passed other landmark legislation: the Clean Air Act, the Clean Water Act, TSCA, the Safe Drinking Water Act. And RCRA is but one link in a chain of environmental safeguards. Yet, the chain is only as strong as its weakest link. And because there has been inadequate implementation of the other bills which have been passed, the other legislation, that chain is weak indeed.

The most likely source of assistance when I was viewing the Love Canal problem and trying to come up with an appropriate Federal response in the first instance seemed to be the Clean Water Act. That contains several sections which seemed relevant to my problem. I would like to discuss some of those sections with you. Hopefully through some innovative thinking and forceful action of the

Congress, we would be able to use existing legislation more fruitfully.

Specifically I would like to deal with sections 201, 208, 311, and 504. I discussed each of those with Administrator Costle and OMB Director McIntyre. I believe that each if applied creatively, could have been most useful in dealing with the Love Canal and similar situations we might confront in the future.

Let me explain. Section 201 provides for grants for construction of wastewater treatment works. It is a \$40 billion program. The solution which has been designed for the cleanup of the canal is, in effect, a micro sewer system. French tile drains are being laid so the leachate can be collected.

The contaminated wastes will be flushed through an on-site pretreatment plant and eventually through the municipal sewage treatment plant. If EPA were to recognize the fact that this plan of action is in essence part of a municipal sewer system, then 201 funds could have been used in this innovative way. I believe we should encourage EPA to do this.

Section 208 provides funds for State and areawide planning and management programs to address non-point source discharges. "208 agreements" must be certified by the governor and no 201 funds can be granted without the 208 funds in place.

I attempted to get New York State to use some of its funds for planning at the Love Canal. This met with some resistance because it was unknown whether or not the toxic contaminants of the canal had yet polluted the groundwater or deep water aquifers. It seemed to be the 208 planning program was ideally suited to addressing the questions of (a) whether the water contamination had occurred and, if so, how to alleviate; or (b) if contamination had not taken place, how to make sure it didn't in the future.

Here too I believe we must encourage EPA and the State to use 208 more creatively to deal with existing and pressing problems.

Section 311 provides for the designation of hazardous substances which, when discharged, present an imminent and substantial danger to the public health and welfare. It also provides penalties for discharges of such substances. We had tremendous difficulties applying 311, primarily because it took virtually 5 years to promulgate regulations pursuant to section 311.

Second, when they were promulgated they were tossed out in the courts by a Louisiana court. I am hopeful that the new set of standards recently promulgated will take effect as scheduled at an early date and might be useful.

Finally, Mr. Chairman, and most importantly, section 504. This section specifically authorizes EPA to provide assistance in emergencies caused by the release in the atmosphere of any pollutant or other contaminant, including but not limited to those which present or may reasonably be anticipated to present imminent and substantial danger to the public health and welfare.

This section addresses most fittingly situations such as the Love Canal. With the assistance of my Senate colleagues from New York, I tried to obtain funding for the canal under section 504 last year. Senators Javits, Moynihan and Muskie were most eloquent during the Senate supplemental appropriations process for EPA.

But OMB resisted any funding under section 504. We have authorized money but not appropriated money, and OMB has led the opposition to the appropriation of moneys under section 504, claiming it would open the proverbial floodgates.

Mr. Chairman, we have got to put our money where our mouth is. We have a vehicle to deal with the problems. It might not be the best in the world, but until we devise a better one, let's fund section 504. It is imperative it be done and it be done immediately.

The one section of the law we were able to tap was section 8001(a) of RCRA. This too had been authorized in the past and never funded. We were able to get a special appropriation of \$4 million to be matched equally by the state for a demonstration grant under 8001(a). That amount is not nearly adequate to deal with the horrendous problems we are facing. It is not nearly adequate to deal with the problems throughout the United States. And too, of course, that is only a demonstration program under 8001, but it too needs considerably more money.

Mr. Chairman, my primary goal this morning has been to share with you my experience in dealing with the problems of toxic substances within my congressional district and the exposure of human beings to those toxic substances, to present for you a comprehensive program which would deal with hazardous wastes, both from those in the past in abandoned waste sites and those from the present and future in more effectively controlled means of disposal.

If I can be of assistance to you in your deliberations in the weeks and months ahead, my office and myself stand ready to do whatever we possibly can. I thank you for your indulgence and in listening to me for so long this morning. I now wonder if you have any questions you might like to ask.

[Testimony resumes on p. 25.]

[Hon. LaFalce's prepared statement follows:]

STATEMENT OF HON. JOHN J. LaFALCE, A REPRESENTATIVE IN CONGRESS FROM  
THE STATE OF NEW YORK

Mr. Chairman: It is an honor to testify before you today on the the reauthorization of the Resource Conservation and Recovery Act of 1976 (RCRA) and related issues.

Before I discuss my feelings about how current law should be changed and improved, I want to share some facts which will provide a context for my recommendations and make you aware of how urgent I believe it is for Congress to take action to fill the gaps in existing law.

On August 2, 1978, the New York State Commissioner of Health advised pregnant women and children under the age of two to evacuate the Love Canal area of Niagara Falls, which is in my Congressional District. This order led to the permanent relocation of 236 families immediately adjacent to the site. Why had this order been issued? Because health data had shown that the women living in this area suffered from a high rate of miscarriage, and children who were born to couples living there had a high rate of birth defects, ranging from cleft palates to mental retardation.

Again on February 8, 1979, New York's Commissioner of Health had to issue a similar order for a wider geographic area surrounding the Love Canal. This order involved the temporary relocation of approximately 50 families for the same reasons as were given in August of 1978. This time the families who had to move were those who lived along swales - old streambed paths - which formerly flowed out from the Canal. These areas proved to be extremely permeable and leaching toxic chemicals flowed along these paths of least resistance.

What caused this horror story? The U.S. Environmental Protection Agency, with assistance from the NYS Department of Environmental Conservation and the New York State Department of Health, identified over 200 chemicals, many of which are suspected carcinogens, to be present in the soil and ambient air emanating from this abandoned landfill and polluting the environment in which these people lived. This terrible tragedy has brought fear, sickness, and serious personal injury to the innocent victims of toxic wastes which were indiscriminately buried in the Love Canal over 25 years ago.

But the Love Canal is not unique. Approximately 39 abandoned landfills have been identified in Niagara County alone, the Love Canal being only one of them. Last week, the House Interstate and Foreign Commerce Subcommittee on Oversight and Investigations held hearings on some of these sites in Niagara County. One which was discussed was the Hyde Park Landfill, which sits in the midst of factories and a university. Workers from the factories testified that illnesses such as growths, skin lesions, childbirth defects, (one child being born with 3 ears), are now common among the workers and their families. It was made known that over the last eight years more than half the workers in one factory have had serious health problems, and eight out of sixty workers have contracted cancer.

These stories are truly tragic. EPA has stated that there are perhaps close to 1,000 abandoned sites across the country which are imminent hazards to the health and welfare of the people of this nation as well as our environment. EPA has also said that there could be as many as 30,000



abandoned sites "out there" waiting to be indentified, and the costs of cleaning them up are staggering. Estimates are that approximately \$20 to \$25 billion will be needed to clean up the imminently hazardous ones, and an additional \$24 billion to monitor those that need not be reclaimed, a total cost of \$50 billion. The Love Canal price tag so far is approximately \$13 million to abate the leachate, clean up the environment and temporarily relocate the affected families. This figure does not include the permanent relocation costs which the State of New York has chosen to assume for all those living within the geographic scope of the August order.

It is because we have these abandoned sites and we know that they are potential timebombs that I believe we should act on the issue of abandoned sites during the reauthorization process.

When Congress passed RCRA in 1976, we hoped to prevent such incidents by providing for a hazardous waste regulatory program; a program to eliminate open dumping; a program for financial and technical assistance for planning enhanced solid waste management systems; and authority for research, demonstrations and studies. Essentially, Congress passed a law which would regulate solid waste and track hazardous waste from "cradle to grave".

#### HAZARDOUS WASTE CONTROL ACT

However, RCRA dealt only with current and future handling of solid waste; it did not take into account the mismanagement of wastes that were generated in the past. It is this second issue which I wish to discuss with you first.

I have introduced a bill, H.R. 1048, the Hazardous Waste Control Act, which is intended to fill some of the gaps in RCRA which have become

evident since its enactment three years ago. I hope this bill will serve as a basis for discussion during the reauthorization process.

My bill would amend RCRA by establishing a program for the identification, reclamation and monitoring of abandoned hazardous waste sites; setting fees to be paid by private organizations which store or dispose of hazardous wastes, and providing a process for the selection of sites for future disposal of hazardous wastes.

More specifically, my bill would mandate a concerted effort to identify all abandoned landfill sites that do or may contain hazardous wastes (a program which, I am pleased to say, is currently being conducted in my own state of New York). Once they are identified, they would be reclaimed, if desirable and feasible. If reclamation is not feasible, they would be monitored to ensure that public and environmental health and safety are not endangered.

Fees would be collected from permit-holding operators of hazardous waste treatment, storage or disposal facilities. Revenues from these fees would be placed in a reclamation and maintenance fund, which in turn would be used, in combination with state and federal contributions, to deal with abandoned sites.

Another provision in the bill establishes a contingency fund for emergency assistance and payment of costs to clean up hazardous waste situations which threaten the health of the general public. This portion includes an authorization for the government to bring legal action against those responsible for such emergencies to recover the cost of clean-up operations.

My legislation also deals with the question of where to locate new hazardous waste disposal sites, an issue not presently covered by RCRA. When RCRA was passed in 1976, few foresaw the widespread public opposition to new hazardous waste disposal sites which has swept the nation. The general public was not then fully aware of the large number of abandoned sites throughout the country, the deleterious effects they were having on people's health and safety, and their dire impact on the environment. Now that public awareness has grown, in part due to the Love Canal, the Valley of the Drums, and other such infamous sites, citizens are understandably leery about the dubious honor of having a new site proposed for location in their backyards.

However, if we are to continue to accept the benefits from our highly technological society, we must provide for the selection of new hazardous waste disposal sites. Hazardous wastes continue to be produced at an exponential rate as by-products of our manufacturing process, and they should be buried in safe sites instead of along the roads or in the ocean. Further, dangerous wastes from mismanaged older sites will have to be moved to new and safer locations.

EPA has estimated that municipal solid waste alone amounted to about 130 million metric tons in 1976, enough to fill two New Orleans Superdomes each day, 365 days a year. By 1980 the annual total is projected to increase to 180 million tons, almost 40% more in four years.

Industrial waste generation is estimated at 344 million metric tons a year, with a growth rate of 3% per year. EPA estimates that 10 to 15

percent of industrial wastes will be classified as hazardous under RCRA.

In addition, our municipal wastewater treatment systems generate wastes known as sludge, and agriculture produces even more wastes. All these residues need to be recycled, incinerated or disposed of safely. My bill aims to provide a program to achieve safe future disposal by setting up a program for the siting of new hazardous waste disposal sites. This would be accomplished by having the EPA Administrator approve or disapprove an application after having consulted with the National Academy of Sciences, state and local governments, and a public hearing in the area affected.

The Comptroller General, in a Report to Congress published on January 23, 1979, agreed with many of the concepts I have suggested for legislation to fill the gaps in RCRA. The Report is entitled, Hazardous Waste Management Programs Will Not Be Effective: Greater Efforts Are Needed. It is, I believe, a careful analysis and agenda for action in this troublesome area.

#### TOXIC TORT ACT

Before I discuss other legislative initiatives relating directly to RCRA, I would like to take this opportunity to tell you about another bill I have introduced. While this legislation is not meant to be part of the RCRA reauthorization process, it is relevant to the problem of hazardous waste disposal and its effects on people.

As we all know, perhaps the greatest tragedy of the Love Canal experience and most cases of chemical poisoning, is that those who suffer physical injuries and other damages have no effective means of obtaining compensation for their losses. The lack of scientific and medical knowledge relating exposure to toxic substances with human illnesses, when combined with traditional proof requirements of our judicial system, almost preclude compensation for injured persons.

I have, therefore, introduced the Toxic Tort Act, H.R. 1049, to address some of these problems. My bill would accomplish the following objectives:

1. It would create a federal cause of action for victims of toxic substances, permitting them to seek redress against negligent manufacturers.
2. It would establish an independent Board within EPA to compensate victims of pollution-related injuries regardless of fault. This agency would function, in principle, like a workers' compensation system.
3. It would require EPA to study the relationships between exposure to toxic substances and human disease and authorize EPA to make a "requisite nexus" finding. This would overcome the problem of proving causation with traditional proof requirements.
4. It would modify the proof and time limitation requirements which claimants must meet in state workers' compensation proceedings and in court actions, permitting the use of the presumption based on EPA's "requisite nexus" findings.
5. It would subrogate EPA to the rights of the injured party, enabling EPA to seek reimbursement from negligent parties.

#### COUNCIL ON ENVIRONMENTAL QUALITY STUDY

Last Tuesday I proposed an amendment to the Toxic Substances Control Act which would improve the government's research into effects of toxic substances exposure. I am happy to say that the House Commerce Subcommittee on Consumer Protection and Finance adopted it on Thursday, March 2

The amendment directs the Council on Environmental Quality to conduct a comprehensive study on the compensation of victims of exposure to toxic substances, authorizing \$2 million to carry it out. The study would be done in consultation with other agencies, such as the Department

of Labor, EPA, the Department of Health, Education and Welfare, the Justice Department and others, that are currently studying toxic substances questions. This study should be completed and submitted to Congress within 18 months after enactment. It is, I believe the next logical step in a program to guard our health and our environment from unreasonable risk or injury caused by toxic substances exposure. The study will provide recommendations to improve the system of compensating innocent victims of toxic exposure, such as the residents of the Love Canal and Hyde Park areas in my congressional district; East Gray, Maine; Toone, Tennessee; Cancer Alley in New Jersey; Charles City, Iowa; and countless others. The amendment also provides a mechanism to collect much of the information which will be needed in order to implement the Toxic Tort Act. I urge every member of this Subcommittee to support this provision in the TSCA reauthorization bill when it comes up for full Committee consideration.

#### OTHER LEGISLATIVE INITIATIVES

Other legislative initiatives which have been developed deal not only with abandoned sites - as my bill does - but also with existing and future sites. It is my hope that these two prongs of the hazardous waste problem can be melded together, along with funding concepts capable of dealing with both of them in a reasonable time frame, in one comprehensive program.

Many proposals suggest that the only way to ensure a sufficiently large fund with which to handle all environmental calamities - such as oil spills, hazardous waste spills, and abandoned sites - is to develop an all-encompassing "superfund." This concept was raised during the 95th Congress by Senator Muskie; the Senate passed a bill including it, but the House rejected it. I understand that Chairman Florio is considering a similar proposal in the House this year; I applaud his leadership on this issue.

The Administration's position remains unclear, unfortunately. I am advised that EPA supports a "superfund" concept based on the concepts in Section 311 of the Clean Water Act. Their fund would cover oil spills, hazardous waste spills and abandoned waste sites. The Department of Transportation, with prime responsibility for oil spills through the Coast Guard, favors keeping a separate oil spill fund, rather than having a fund for multiple purposes. OMB, refereeing between these two, is awaiting the recommendations of a Justice Department coordinated Task Force, due in May, before developing a final Administration position.

Knowing as I do how difficult and potentially costly a problem we face in trying to mount an effective effort in the area of hazardous wastes, I support the concept of a "superfund" to deal with a number of environmental calamities. I would suggest, however, that it be structured to achieve a number of goals, rather than just as a means of raising the necessary funds without becoming an undue burden on the federal budget.

This suggestion is based on my view that we ought to develop a truly comprehensive program to manage hazardous wastes, and to do so we ought to have a funding mechanism which not only generates sufficient revenue to do the job but which also encourages the private sector and others involved to keep future problems to a minimum.

The "superfund" concept generally uses a tax on oil, or on both oil and natural gas, as its revenue source. These are both appropriate, in my view, as oil and natural gas, in addition to being hazardous substances themselves, constitute primary natural resources in the manufacture of many chemicals and other dangerous materials.

But a broad tax on the natural resources alone would not achieve other goals which a funding mechanism can help greatly with, such as:

- \* conservation, and therefore reduction of waste;
- \* recycling of hazardous wastes into other manufacturing processes, thus reducing the quantity of wastes to be handled;
- \* otherwise reducing the amounts of wastes to be handled, treated or disposed of; and
- \* reducing the toxicity of wastes that cannot be eliminated.

My bill, in the funding mechanism suggested for dealing with abandoned sites, contained one approach which would help meet these goals. This is the suggested fee to be paid by those who store or dispose of hazardous wastes.

I'm not wedded to this approach - there are many ways to achieve these same goals and I put mine forth as just one for your consideration. But I do feel that a fee system which derives its revenues from both the producers of the raw materials, at the start of the production cycle, and from those who dispose of the wastes at the other end, can provide both needed revenues for a comprehensive program and desirable incentives to keep the dimensions of the problem to a minimum in the future.

So I propose that we combine the two revenue sources and then use them both, through a "superfund" concept, to deal with all of these problems. I would also suggest that the states be asked to supply at least some of the funds needed to deal with problems within their borders, inasmuch as they have benefitted from having the industrial processes which produce wastes and they ought, therefore, to carry some of the societal burdens associated with them. My bill suggests 10%, but on reflection I think that perhaps 5% is more equitable.

In no way should any program we devise relieve past, present or future manufacturers or disposers of liability for negligence in dealing with hazardous



substances. It is important that our actions find the proper balance between the need to encourage responsible entities in the private sector to take part in the disposal business and the need to assure that both victims and the government be able to hold irresponsible or negligent parties accountable for their actions.

If we do create a "superfund," then, it should be done in a way which permits the government to step in, deal with a problem, and then seek reimbursement from those who caused the problem if negligence was indeed involved. This concept should apply to abandoned sites and to those future situations where, despite greater regulatory efforts to assure safe and careful handling of hazardous materials, problems may also arise.

Some of those involved in developing legislation in this area have expressed reservations about including damages beyond the costs of ameliorating the physical problems themselves within the funding mechanism. I understand these reservations, but I would suggest that unless we take third-party damages into account, and try to deal with them, we will not have tackled the entire problem.

Innocent victims are involved - people who have suffered personal injury, temporary or permanent loss of income, deep psychological scars and often severe reductions in the value of property. These damages are as real as if they were in an automobile accident or a fire, yet they are frequently left with no means of redress whatsoever.

I would recommend, therefore, that these third-party damages also be part of a "superfund" concept. Again, the government would have the right of subrogation and could seek reimbursement from negligent parties. My Toxic Tort Act, described earlier, includes a punitive damages section for particularly flagrant instances of irresponsibility; the revenues from these damages

would flow to the government - another source for the "superfund."

I am hoping to refine these new concepts and to introduce new legislative proposals in the near future, but felt I should share them with you now for your consideration.

#### RELATED LEGISLATION

By not having a program which regulates all aspects of solid waste, we have created a gaping hole in our national policy to reduce the amount of pollutants in the environment. Congress has passed other landmark legislation, including the Clean Air Act, the Clean Water Act, the Toxic Substances Control Act, the Safe Drinking Water Act and others. RCRA is only one link in the chain of environmental safeguards Congress has enacted. Yet a chain is only as strong as its weakest link. Without full implementation and full funding for each of these laws, we will be unable to fulfill the promises they made to present and future generations of Americans.

EPA and the Administration have been criticized, often with cause, for serious delays and other problems in implementing these and other laws. Yet Congress has also been lax, in that we have not provided appropriations to fund many of the sections of these laws. My efforts to find sources of assistance for the Love Canal emergency provide examples of both Administration and Congressional reluctance to deal forcefully with hazardous waste issues.

The most likely source of assistance seemed at first to be the Clean Water Act, containing several sections which seemed relevant to the Love Canal. I discussed four of them -- sections 201, 208, 311 and 504 -- with EPA Administrator Douglas Costle and OMB Director James McIntyre. I believe that each, if applied creatively, could have been most useful in dealing with the Love Canal and similar situations. Let me explain.

Section 201 provides for grants for construction of wastewater treatment works. It is a \$40 billion program. The solution which has been designed for the cleanup of the Canal is, in effect, a micro sewer system. French tile drains are being laid so the leachate can be collected. The contaminated wastes will then be flushed through an on-site pretreatment plant, and eventually through the municipal sewage treatment plant. If EPA were to recognize the fact that this plan of action is, in essence, part of a municipal sewer system, then 201 funds could have been used in this innovative way. However, EPA resisted this approach, stating that it is not a "traditional" use of these funds. Love Canals are not traditional problems, and I think that EPA should be looking for innovative uses of its programs for new problems as well as traditional ones.

Section 208 provides funds for state and areawide planning and management programs to address non-point source discharges. It provides for local input and localized planning. "208 agreements" must be certified by the Governor and no 201 grants can be awarded without the 208 agreement in place. It must be reviewed and updated each year as necessary.

I attempted to get New York State to use some of its funds for planning at the Canal. This also met resistance, because it was unknown whether or not the toxic contaminants from the Canal had yet polluted the groundwater or deep water aquifers. It seemed to me that the 208 planning program was ideally suited to addressing the questions (a) whether water contamination had occurred and, if so, how to alleviate

or (b) if contamination had not taken place, how to make sure it didn't in the future. This, I felt, would have been a creative use of an existing program, implementing laws to address problems of which we are only now becoming aware.

Section 311 provides for the designation of hazardous substances which, when discharged, present an imminent and substantial danger to the public health or welfare. It also provides penalties for discharges of such substances. A National Contingency Plan is to provide for effective action to minimize damage from oil and hazardous discharges. A revolving fund is authorized to pay for clean up of spills of oil and hazardous wastes, with EPA's Administrator given authority to seek to recover costs from polluters through the judicial process.

The section provides the basis for the "superfund" concept which I discussed earlier. It is unfortunate that EPA has taken over five years to promulgate regulations for the hazardous substances portion of Section 311. I am hopeful that the new set of standards -- the first was thrown out in a court action -- will take effect, as scheduled, at an early date.

Finally, Section 504 authorizes EPA to provide assistance in emergencies caused by the release into the atmosphere of any pollutant or other contaminant including, but not limited to, those which present, or may reasonably be anticipated to present, an imminent and substantial danger to the public health and welfare.

This Section addresses most fittingly situations such as the Love Canal. With the assistance of my Senate Colleagues from New York, I tried to obtain funding for the Canal under Section 504 last year. Both Senator Javits and Senator Moynihan - as well as Senator Muskie - spoke eloquently

in support of the amendment to the Supplemental Appropriations bill to provide funds to clean up the Love Canal and abate the health and environmental emergency. However, OMB objected to funding under Section 504 because it would open the proverbial "floodgates" for funding any situation. Thus far, not one penny has been appropriated under Section 504 for use anywhere.

Section 504 is relevant to hazardous waste problems and a wide variety of other environmental problems. It would have been ideally suited to provide a flexible source of federal help for the Love Canal and other such situations, and presumably this is why it was enacted. Yet, I regret, we have not appropriated one penny for it to date. Regardless of whether we succeed in devising a comprehensive way of dealing with toxic and hazardous wastes, I am hopeful that the 504 program will be funded this year.

Proponents of the "floodgates" argument expressed concern that providing funds for the Love Canal under this provision ran the risk of "busting the budget" when viewed in the context of the overall problem. However, Congress can easily control this by deciding precisely how much money it wishes to provide. EPA would then have to use that money selectively. We would be derelict in our duty to protect the health and welfare of American citizens if we once again fail to fund Section 504.

The one area of law where we were able to convince the Administration to provide more than the emergency assistance funds that were approved under the President's declaration of the Love Canal as a federal emergency was under Section 8001(a) of RCRA for a demonstration

grant. OMB insisted that the \$4 million provided in the supplemental appropriations bill for this purpose be matched by non-federal -- i.e., state and local -- funds on a 50-50 basis. Nevertheless, this was a breakthrough, as it was the first time Section 8001(a) was funded. I hope it will not be the last.

#### CONCLUSION

My primary goal in this Congress is to help bring about the creation of a comprehensive program to deal with hazardous wastes, both those from the past in abandoned sites and those from the present and future in more effectively controlled means of disposal. The "superfund" concept discussed earlier, combined with the incentives I have tried to put in my suggested fee system for users and handlers of hazardous substances and wastes, offers one way of approaching the difficult questions of funding solutions to these problems. I hope that it or something similar can be enacted at any early date. In the interim, I will continue to urge funding for the provisions I've outlined here, for they can help, pending the comprehensive program I am convinced we need.

I have tried to emphasize that there is a greater role for Congress to play in controlling toxic substances in the environment, particularly with regard to their ultimate disposal. As members of the national legislature, we have both moral and legal obligations to the citizens of this country to protect their health, environment and welfare. The people look to us to make sure that our world will be safe for them and for succeeding generations.

Your deliberations will lead to the writing of legislation on which we will all have to vote. I know you share my goal of making your legislative proposals as good as they possibly can be; my testimony

Mr. FLORIO. Thank you. We do appreciate your contribution and will take advantage of your offer of ongoing assistance to the committee.

With regard to the Love Canal situation, what specifically, if anything, was the private contribution that came from the owner of the canal or the previous owner of the canal? Was there any private contribution for cleanup funds?

Mr. LAFALCE. The Hooker Chemical Co., which was at one time the owner of the canal but is no longer the owner of the canal, which deeded the canal over to a different party did offer to make a modest contribution. I have forgotten the exact amount, I think it was \$250,000. But that was so modest that the State has not availed themselves of this contribution thus far and the State is contemplating through the Attorney General's office action seeking more comprehensive reimbursement from whatever negligent parties there might be.

Mr. FLORIO. The basis of the action being what, a statutory basis, police power?

Mr. LAFALCE. That remains to be seen as the action has not been brought. However, one might proceed under nuisance laws, perhaps. That is one of the difficulties. We do need legislation that would clarify a legal cause of action. That is why I have introduced H.R. 1049, which creates a Federal cause of action.

There are certain sections that EPA could proceed under also, but EPA has been reluctant to proceed thus far under certain sections defining the areas of imminent and substantial hazard, going in to perform cleanup work and then seeking reimbursement.

Mr. FLORIO. Under imminent hazard provisions of RCRA, it would be my understanding that you would proceed against the current owner, who in this instance would not be the individual or individuals responsible for the problem.

Mr. LAFALCE. That is correct.

Mr. FLORIO. Did I understand you to say that New York State is inventorying abandoned dump sites?

Mr. LAFALCE. Yes, they are, Mr. Chairman.

Mr. FLORIO. Has New York State formulated a state plan yet for the regulation of hazardous wastes yet?

Mr. LAFALCE. Mr. Chairman, they are awaiting the Federal Government's plan before they can put something firmly in place. They certainly have been more active, in my judgment, than any other state in attempting to deal with the problem, perhaps because it arose first here. So I praise the State of New York for their efforts thus far, but until the EPA regulations pursuant to the 1976 legislation are in place—and we both know too well how long it has taken EPA to promulgate those regulations. The Oversight Subcommittee of this whole committee held hearings in October at which I testified regarding the lengthy delay and the fact that EPA is 1½ years behind in the promulgation of those regulations.

As you well know, the EPA has since that time promulgated regulations for a good many of the sections of the 1976 legislation, but they still have not been finalized.

Mr. FLORIO. Mr. Congressman, we thank you for your contribution, and we look forward to working with you in the months ahead.

Mr. LAFALCE. Thank you, Mr. Chairman.

Mr. FLORIO. It is my understanding that Governor Lamm will not be here. In fact, Mr. William DeVille, an assistant to the Secretary of Natural Resources—I assume that is of the National Governors' Association.

**STATEMENT OF WILLIAM B. DE VILLE, ON BEHALF OF THE  
STATE OF LOUISIANA, DEPARTMENT OF NATURAL RE-  
SOURCE, AND NATIONAL GOVERNORS' ASSOCIATION**

Mr. DEVILLE. Thank you, Mr. Chairman.

Mr. FLORIO. Governor Lamm's testimony will be placed into the record [see p. 37].

Mr. DEVILLE. My governor, Gov. Edwin Edwards of Louisiana, previously chaired the NGA subcommittee on waste management for a period of more than 2 years. We have appreciated the interest of this oversight committee in its continuous monitoring of the development of the regulatory premise of RCRA and its interest in looking at such additional legislation or mixes of resultant existing authority when the Federal Government made RCRA.

I wish to assure you that a large number of the states are moving quite rapidly toward the assumption of the responsibilities provided for under subtitle C of RCRA for the management of hazardous wastes, as well as moving toward the development of a state solid waste plan under subtitle D of RCRA.

The National Governors' Association has supplied a useful vehicle for the communications between the States and the Environmental Protection Agency, and the consultation mandated by the law between EPA and the States before the promulgation of regulations.

I should like to depart at this point to my own state's actions and briefly summarize our status in the situation. In 1978 our State legislature had enacted a hazardous waste control act, designed very tightly after the model of the hazardous waste program under RCRA. We have at this time already prepared and presented for public reviews draft hazardous waste regulations to implement that program.

The reason for movement in advance of the development of EPA's regulations is quite simple. Louisiana is one of the largest generators in the nation, usually, ranked about fourth by EPA's estimates. We have had problems which are obvious which indicate to the public and to the governor and the legislature that it is necessary to get hands on without any further delay in trying to bring under control those wastes which are necessarily associated with economic activity and which may be hazardous to the public health and the environment.

We think we can legislate a useful program even in advance of the development of the Federal regulations, and we anticipate, in fact, that the Federal regulations are likely to be consistent and equivalent to ours, if I may make that statement.

Because we have been forced to move rather rapidly I would like to call to your attention to our system of the shared quantitative



scope of the program. I think this is one of the things the public should be aware of. I want to talk about figures of wastes generated annually in my State alone, in Louisiana.

The category of wastes that we look at which we think are fully hazardous which are destined at this time, and probably in the near future, for land disposal or landfarming or incineration, we estimate, based upon several surveys, to be on the order of 2.7 million tons per year. We have accurate documentation of the quantities of industrial wastes disposed of by subsurface injection under State regulatory control. That number is 10 million tons per year.

We have quite accurate information on the special waste categories, which our State regulations track rather closely with EPA's proposed regulations, including such things as spent bauxite, gypsum waste from phosphoric manufacture, and other special wastes. That figure is 12 million tons per year.

Brines associated with petroleum production, which are disposed of by subsurface injection, which we have very accurate data on under State regulatory control, amounts to 216 million tons per year.

Finally, the largest item of all was introduced by the coverage of the proposed Federal regulations for the protection against groundwater contamination of surface impoundments within the NPDES treatment train. We estimate, based on surveys of site investigations and in trying to exclude those surface impoundments which we think would not be classified as hazardous under any reasonable likelihood, that the program will cover in that area 2 billion tons of wastewater per year, for an aggregate of 2,240,700 tons of waste per year in Louisiana alone.

I think it is time we made this an informational point that the coverage of the regulations is vast in terms of the waste streams included.

Next, looking at this, we have felt it necessary to allocate management responsibilities on the premise that although our State budget already presented for a new program is on the order of \$2.5 billion per year. To try to administratively handle those waste streams which are most deserving of special consideration requires some management considerations which we think are not yet provided in the Federal regulations.

One of those tools is degree of risk or degree of hazard, and we have attempted in our regulations to provide some quantitative and really quite well-recognized approaches to that premise so that we can allocate our own resources to those types of facilities and waste streams which deserve the greatest attention, and also to allocate those resources for enforcement and response actions in a proper way.

I would like to very briefly touch on some other points. With reference to subtitle D, we feel that because much of the cost of upgrading or terminating solid waste disposal facilities which are unsatisfactory will be borne by a local government, that in the very real sense the desirability of the continuation of the authorization of subtitle D should be tied to the recognition of the need to appropriate funds authorized for the support of at least planning

assistance to local government to meet their necessary responsibilities.

Next, on the question of siting. Lacking any evidence to the contrary, we feel that the appropriate responsibility for the adequate provision of hazardous siting, as well as solid waste siting, is properly at this time in the province of the State. And we think it would be premature at this time to preempt that responsibility at the Federal level.

Should our experience in the future indicate that the State cannot adequately share the necessary siting, obviously we would have to review that position. At this time we don't think they are going to be in that kind of position. I would like to comment that in Louisiana we have a number of abandoned hazardous waste sites. We are conducting a survey with analytical teams, gathering samples at each one as it is identified.

We are also conducting an aerial survey to attempt to find still others on which no records exist. We plan to make a report to the Louisiana legislature on the abandoned sites within the next month or month and one-half, and we are going to be conducting studies as to the nature of the problems each of the sites may present and its danger potentially to the public health and environment, the costs of cleanup and the existing remedies under State law which may exist.

We would feel at this time that without having done that homework, it would be premature for us to recommend any particular approach, including the superfund approach. Louisiana law does provide, and we have had an attorney general's opinion on this specifically, a number of exist remedies. And until those have been further examined in light of the actual degrees of hazard, we would prefer to go a bit slowly on the superfund approach.

Next, we do or plan to introduce for legislative consideration this spring a bill which would authorize the State to undertake certain responsibilities for the perpetual evaluation and monitoring of closed or abandoned hazardous waste facilities and to provide funds for that purpose.

We have looked at what would be required for the evaluation and monitoring per se, and we think that a fund of State resources on the order of \$10 million would be adequate to assure that responsibility is met. In that light, should the legislature enact that bill, we would prefer that the Federal program, should one be developed, neither duplicate nor preempt that particular activity. We would like to discuss that in the future as your deliberations proceed further.

We very much encourage enhanced investigation at the Federal level as to the potential endangerment of the public health and environment presented by abandoned sites, and of the whole range of legal and technical remedies, not limited to the superfund concept which may be available or could be developed, including, I would hope, an enhanced level of technical competency and investigation among the appropriate Federal agencies.

Finally, we would encourage the performance of the responsibilities mandated to the Department of Commerce and to the National Bureau of Standards and RCRA for support, encouraging the recovery or reuse of waste materials because we feel that one of the

limiting factors remains much of the technological base of information necessary to support product development and quality control as regards resource recovery from wastes.

Thank you, Mr. Chairman.

[Testimony resumes on p. 41.]

[Mr. DeVille's and Governor Lamm's prepared statements follow:]

STATEMENT OF WILLIAM B. DEVILLE, ON BEHALF OF THE STATE OF LOUISIANA  
DEPARTMENT OF NATURAL RESOURCES

For more than two years Governor Edwin Edwards, past chairman of the National Governors' Association Subcommittee on Waste Management, led his colleagues in support of the practical and effective implementation of the Resources Conservation and Recovery Act (RCRA). That support continues from the dual perspectives of Governor Edwards' membership on the National Governors' Association Subcommittee on Environmental Management, and his responsibilities as chief executive of the State of Louisiana.

On 1978, the Louisiana Legislature passed Act 334, the Louisiana Hazardous Waste Control Act. This act was specifically intended by Governor Edwards and the Legislature to enact the full authority under State law for authorization under the provisions of Subtitle C of RCRA.

The Department of Natural Resources is responsible under the law for development and implementation of the new hazardous waste management regulatory program, and is moving rapidly to put it into effect during the current calendar year, and hence, in all probability, prior to the effective date of the Federal hazardous waste program. Draft hazardous waste management regulations were released for public comment on March 2, 1979. A public hearing on these regulations is scheduled for April 3, 4, and 5; a subsequent hearing later in April on proposed regulations will be held by the Joint Committee on Natural Resources of the Louisiana Legislature. A proposed budget for implementation of the new regulatory program in Fiscal Year 1979-80, at a cost of more than \$2.5 million, has already been submitted.

Deputy Secretary James M. Hutchison has the leadership role for development of the hazardous waste program. Because Louisiana appears to be the first State which has developed both enabling legislation and regulations on the model of RCRA, Mr. Hutchison stands ready to provide any further information

about this effort to your Subcommittee.

Several points of interest based on this experience, which we believe may be useful to this Subcommittee in its further deliberations, are provided below.

Projection of the quantities of waste to be controlled in Louisiana

We feel that the U. S. Environmental Protection Agency has not adequately portrayed the magnitude of the hazardous waste program as it is now premised upon EPA's proposed Section 3001 regulations. EPA generally cites some 34.5 million tons of wastes identified in the agency's studies of some 17 industry categories.

Because of our need to ascertain the potential types and quantities of wastes to be controlled under the Louisiana program as a prerequisite to design of the hazardous waste program and its budget, the Department of Natural Resources has made detailed investigations of these matters through surveys and compilations of existing information. The following projections are supplied for the Subcommittee's information, with the stipulation that the total quantity projected probably errs on the side of conservatism:

<u>Category of waste</u>	<u>Quantity (tons)/yr.</u>
Hazardous wastes disposed of by burial, landfarming, or incineration	2,700,000
Waste disposed of by subsurface injection in industrial wells (well documented)	10,000,000
Special waste, including waste gypsum, spent bauxite, cement kiln dust, coal residues	12,000,000
Brines associated with petroleum production, disposed of by subsurface injection (well documented)	216,000,000

Wastewaters in NPDES treatment train (conservative estimated based on restriction of non-hazardous impoundments from estimate)	<u>2,000,000,000</u>
TOTAL	2,240,700,000

It should be emphasized that the Department of Natural Resources has been forced to make careful assessments of the quantitative scope of the hazardous waste program in establishment of administrative responsibilities and in the development of formulas for equitable sharing of the costs of the control program through the assessment of permit maintenance fees.

Necessity for setting priorities for regulatory control:

It is obvious that, of the enormous quantities of waste streams captured for regulatory control, the limitations of available resources and other factors make it necessary to establish sound priorities for the regulatory program. We feel that the presently proposed EPA regulations do not provide the necessary basis for such priority establishment.

Clearly, some wastes are more hazardous than others. Equally clearly, some treatment or disposal methods, such as incineration, render a waste innocuous, while other methods, such as land burial, may allow persistence of potential hazards for long periods of time. Therefore, to provide equivalent protection of the public health and the environment for all waste streams, and for all types of treatment or disposal, a properly designed regulatory system should target some waste, or some disposal methods, or both, as requiring more attention than others.

Administratively, the Louisiana hazardous waste program proposes to allocate 80% of its program resources to fully controlled hazardous waste streams (often targeted to land disposal); 15% to control of wastewater streams; and 5% to land disposal of the special waste category. The permit maintenance fee system under which the program will generate revenues has made us especially sensitive to the need for justifying allocations of program resources, since such fees for permit maintenance must be equitable and administratively justifiable.

A fundamental tool for administrative decisionmaking of this kind (which also adds validity of the concept of special wastes) is degree of hazard.

This tool is provided in the Louisiana proposed regulations, and is based in part on existing and widespread industry practices, such as that embodied in the well-known Materials Safety Data Sheets (MSDS). This concept can provide objective criteria for classifying those waste or mixtures of waste which may require extreme care, as opposed to others requiring lesser and varying degrees of care. Thus, administrative justifications for allocations of program resources for surveillance and enforcement actions, as well as for emergency response actions, can be rationally developed.

Necessity for development of standard analytical procedures:

The hazardous waste regulations proposed by the Department of Natural Resources do not, at this time, incorporate a number of the analytical procedures proposed by EPA. The proposed Louisiana regulations do incorporate in modified form listings of processes and waste streams proposed by EPA; generic characteristics; and provision for use of calculated human LD<sub>50</sub> data for assessing toxicity.

The Department of Natural Resources does not believe that the extraction procedure proposed by EPA provides a reliable standard test for screening of toxicity.

The Department will continue to evaluate analytical procedures useful for identifying hazardous waste and defining the nature and degree of public health and environmental problems presented by such waste.

As one facet of this continuing evaluation, a member of the Department staff, Mr. William B. De Ville, currently serves as chairman of an oversight advisory group to the American Society for Testing and Materials (ASTM) subcommittee now engaged in evaluation of the proposed extraction procedures.

Satisfactory analytical procedures supporting the hazardous waste program should provide a clear and unequivocal basis for distinguishing between those waste to come under program jurisdiction, and those excluded from it; should ensure that, as RCRA intends, all hazardous wastes are properly captured under the program jurisdiction; should develop or be based upon standard methodologies of known accuracy, precision and replicability; and should, to the maximum degree possible, be widely available and cost-effective.

Necessity for standards adaptable to regional and local conditions:

Louisiana has repeatedly commented to EPA, both directly and through the National Governors' Association, as to the need for establishment of performance standards, as opposed to design and operations standards, in regulatory development. Performance standards clearly set forth the requirements of the regulatory program as conditions for issuance or denials of permits, and for enforcement purposes. Design and operations standards may, however, allow violation of the intent of the program even by persons who meet all the stated conditions for issuance of a valid permit (if the design and operations standards have been improperly set); may imprudently hinder the development of improved or alternative technology; and may lack acceptable flexibility for satisfactory adaptation to the variety of conditions found across the nation.

One instance of the value of this approach as taken by the Department in development of the proposed Louisiana regulations is the requirement that environmentally sensitive areas must require especial care in permit decisions, without an arbitrary exclusion of such areas. We believe that the broad range of RCRA's definitions of solid wastes and disposal facilities requires such an administrative approach. For example, to arbitrarily prohibit the establishment of hazardous waste facilities in wetlands or floodplains, such as disposal wells for management of brines associated with petroleum production, would have the unacceptable result of prohibiting petroleum production in such areas.



The above comments are offered as illustrative of fundamental considerations Louisiana has addressed in developing a State hazardous waste program designed to meet the intent of RCRA. We hope that these comments, especially those on the quantitative scope of the program and the need for a rubric for satisfactory administration of the program, may be of value to the Subcommittee as it continues its important oversight functions during the continuing implementation of RCRA. It should also be noted that, although the Department of Natural Resources disagrees with and has departed from many of the specific regulatory proposals made by EPA, free and open communications with EPA exist, particularly with the Region VI EPA office. We believe, particularly in light of the current draft of the Section 3006 regulations, that the Louisiana program, as tailored to State needs and priorities, will be fully equivalent to the Federal program, and will qualify for authorization at the earliest possible date.

The Department of Natural Resources offers the following comments on matters which may involve the Subcommittee's consideration of continuing authorization of RCRA, amendments to RCRA, or new legislation:

- \* Because a major portion of the cost of terminating or upgrading solid waste disposal facilities under the Subtitle D criteria will fall on local government, the desirability of continuing the authorization of Subtitle D is interwoven with the degree of the Federal commitment to appropriate funds authorized for assistance to local government, and/or to provide realistic flexibility to the State, such as the ability to make "pass through" grants to assist local government problem-solving.
- \* The State now has, and should continue to have, the responsibility of assuring necessary siting for hazardous waste management facilities. Lacking any experience to the contrary, the Department believes that it would be premature and almost certainly counterproductive to involve the Federal level of government in this matter.

- \* Abandoned hazardous waste sites do exist in Louisiana and, as is the case in other parts of the nation, may present various levels of endangerment to public health and the environment. The Department is presently conducting a survey and assessment of such sites as they are detected, including gathering of analytical data. A report on abandoned sites will be presented to the Louisiana Legislature in the near future, and recommendations will be made as to the need for corrective actions. It is the position of the Department at this time that the greatest priority must be given to implementation of a regulatory program designed to get "hands on" the problem of hazardous waste management so as to prevent the mistakes of the past.
- \* State legislative proposals are under consideration at this time to authorize and provide funding for State responsibilities for site monitoring and evaluation after the closure of a hazardous waste facility. The tendency of the State at this time would be to oppose a Federal "superfund" for these specific purposes which would duplicate or preempt such State legislation, if enacted.
- \* The Department encourages further investigation and assessment of potential endangerment to public health and the environment posed by closed or abandoned hazardous waste facilities, together with studies of the legal and technical remedies which may be appropriate, and not limited to the "superfund" concept.
- \* The Department urges the performance of the responsibilities mandated to the Department of Commerce by RCRA for support of the recovery or reuse of waste materials, together with the provision to the Department of Commerce for adequate funding for that purpose.

We commend the Subcommittee for its active involvement in oversight during this critical period in the implementation of RCRA, and appreciate the opportunity to make these comments.

## STATEMENT OF GOV. RICHARD D. LAMM, STATE OF COLORADO

The National Governors' Association supported the passage of the Resource Conservation and Recovery Act of 1976 and has maintained support for the development of the rules and regulations called for in the law by providing State consultation to the Environmental Protection Agency. Now, two years from the law's passage and the agency's commencement of a regulatory program, there is an opportunity to assess the act's implementation, the efforts by the agency and the departments to develop the necessary standards and programs, and the legislative adjustments necessary to accomplish the Congressional intent. As Chairman of the Natural Resources and Environmental Management Committee and as Governor of a State in which hazardous waste management and control is a critical issue, I call on the Committee to focus on the following issues requiring immediate attention and remedy:

- the need to extend RCRA authorization beyond the FY79 termination date;
- the need to promulgate hazardous waste management regulations in a cooperative and timely manner including grappling with the problem of siting hazardous waste management facilities; and,
- the need to assess the potential danger to public health and the environment posed by waste disposal facilities which are closed or abandoned and to provide such technical and financial assistance as necessary to protect the public as well as the environment from the severe, and in some cases, unestimable damage from these facilities, the financial of the implementation burden to be borne by local governments.

#### Extension of RCRA

The termination of RCRA authorization was predicated on the assumption that all federal agencies and departments charged under the law to fulfill specific regulatory and programmatic requirements would do so consistent with Congressionally

mandated schedules. To date the U.S. Environmental Protection Agency, despite commendable efforts by the Office of Solid Waste, is approximately one year behind schedule in issuing those rules, regulations, and guidelines called for under Subtitles C and D.

The agency's delay in issuing these national minimum standards for acceptable solid waste disposal practices and control of hazardous waste has restricted the States' on-going solid waste management and resource recovery programs and forestalled States' assumption of hazardous waste management program. In order to assure the States' conduct of the open dump inventory to the extent intended by Congress, the initiation under State solid waste programs of the legal and technical follow-up required to upgrade or close open dumps, and to assist States in assuming primary responsibility for the federal hazardous waste program, the recommendation is made to extend RCRA authorization for a minimum of five years.

The burden of upgrading or closing land disposal facilities--whether privately or publicly operated--will be borne predominantly by local units of government. In some cases, capital intensive resource recovery programs may will be undertaken. As a Governor concerned with the cost impacts on local governments in my State which will be reflected in the State budget process I clearly see the cycle of federally mandated requirements imposed on local governments without financial assistance--as has been the case in RCRA--which in turn forces local government to seek State funding assistance. While the National Governors' Association does not seek a construction grants program similar to that provided under the Clean Water Act, the States certainly support an do call for flexibility in managing those federal funds made available to the States in order to provide assistance to local units of government in meeting RCRA requirements. The restrictions being placed by EPA upon the States in concerning provision of

financial assistance to local governments is counterproductive to achieving RCRA's goals.

The Department of Commerce responsibilities outlined under Subtitle E are crucial to the achievement of resource recovery including industrial waste exchange and recovery at the State level. The extended authorization of RCRA should provide for funding this portion of the law and the start of the Department's program.

#### Hazardous Waste Management Regulations

The Committee on Natural Resources and Environmental Management through its Hazardous Waste Management Task Force has worked with the EPA to develop hazardous waste management regulations. The agency's efforts in seeking state consultation have been unprecedented and remarkable. However, the proposed hazardous waste management regulations still fall far short of technically acceptable and/or achievable national standards. I must concur with my colleague Governor Edwin Edwards, Governor of Louisiana, and former Chairman, Subcommittee on Waste Management in the conclusion that if the only alternative is between hasty but bad regulations or late but sound regulations, especially concerning Section 3001, the States' support the latter. The recommendation made is twofold--

- o the agency be urged to meet its own proposed deadlines with appropriate and workable regulations; and,
- o the committee should hold oversight hearings on the technical acceptability and economic impact of Subtitle C regulations, especially Section 3001.

The States have long recognized that a major obstacle to hazardous waste management and control is the location of environmentally acceptable hazardous waste disposal sites. The recommendation is made to explore through an inter-governmental mechanism the identification of the technical and institutional

barriers to locating hazardous waste processing/disposal facilities as well as the investigation of alternative responses including economic incentives to overcoming public opposition to siting such facilities.

#### Closed and Abandoned Sites

The growing instance of abandoned chemical waste disposal sites dramatically reflect the vulnerability of public health and the longterm dangers to the environment. The closed or abandoned site problem is not limited to private concerns and practices but is also attributable to federal facility operators or those of prime federal agency contractors. My references in this regard are the situations at the Rocky Flats Plant, Department of Energy, the Rocky Mountain Arsenal of the Army, and the inactive uranium mill sites throughout the western United States. In these situations, facility operators expend great amounts of money in denying the existence of the problem and defending past actions rather than taking remedial action.

The recommendation is made that the Committee take further steps to address this problem including consideration of legislative revisions to RCRA and efforts to detail the extent of the problem and the potential technologies, both domestic and foreign, as well as possible funding mechanisms to control and alleviate the dangers to public health and the environment posed by these sites.

I appreciate the opportunity to address the Committee and assure you that the Committee on Natural Resources and Environmental Management will continue to address the issues concerning hazardous waste management and will work with the Committee in seeking solutions to this critical problem. I would request that two items be entered into the Committee's hearings record, they are

- o an article by Governor Edwin Edwards, former Chairman, Subcommittee on Waste Management describing the State/federal relationship necessary under RCRA; and,
- o a summary of the findings and recommendations of the Hazardous Waste Management Task Force on the proposed Subtitle C regulations.

Mr. FLORIO. I have one particular question. Has any thought been given at the State level for a system of user fees to either finance prospective regulatory systems such as you have apparently enacted in the State legislature or for purposes of remedying abandoned sites?

Mr. DEVILLE. I am glad you asked that question. Our State law in fact provides that the system will be self-supporting, and our regulations also include fees for the initial application for permits for hazardous waste facilities, and the program will be supported on the basis of a permanent operation and maintenance fee based either on acreage or tonnage of wastes treated or disposed of.

Second, I mentioned a \$10 million fund which we expect the legislature will provide the authorization for this spring for the State's performance of monitoring and evaluations of closed and abandoned sites. That fund will also be assessed, the tonnages based upon various categories and different fee structures of wastes which are disposed of in the State.

Mr. FLORIO. Thank you very much. We appreciate your testimony.

Mr. DEVILLE. Thank you, sir.

Mr. FLORIO. Our next witnesses will be representatives from the Environmental Protection Agency, Thomas Jorling and Steffen Plehn.

**STATEMENT OF THOMAS C. JORLING, ASSISTANT ADMINISTRATOR FOR WATER AND WASTE MANAGEMENT, U.S. ENVIRONMENTAL PROTECTION AGENCY, ACCOMPANIED BY STEFFEN PLEHN, DEPUTY ASSISTANT ADMINISTRATOR FOR SOLID WASTE MANAGEMENT**

Mr. JORLING. Thank you, Mr. Chairman.

With me is Steffen Plehn, the Deputy Assistant Administrator managing the Solid Waste Office.

We have two items of testimony.

Mr. FLORIO. Before you got here, we indicated that each witness' entire testimony would be placed in the record. Likewise, your summary will also be placed in the record, and we would ask that you proceed accordingly.

Mr. JORLING. Thank you, Mr. Chairman.

It is my understanding that you want to hear today from EPA on the hazardous waste part of the program under RCRA and that tomorrow staff will be returning and discussing the progress and implementation of the other provisions. So with that understanding, I would like to proceed.

I don't think anyone any longer has any doubts of the significance of the management of hazardous wastes in this country. The prevalence and continuous disclosure of hazardous waste sites, both those currently operating and those which have been abandoned, continue to preoccupy many public officials, as they should.

EPA believes that the legislation enacted in 1976 creating a regulatory program for the management of hazardous waste is sound, but recognizes, however, that the program is directed at future activities and therefore may need additional refinement with respect to those activities which have occurred in the past or activities which are presently being conducted which will be aban-

done when the regulatory structure comes into effect and will add to the backlog of problems we might call simply the result and burden that society must pay for past bad management.

The committee deserves an explanation of the progress under the basic authorizing subtitle C activities. As has been pointed out by previous witnesses, the agency was late in meeting the statutory timetable for promulgation of the basic regulatory structure for the management of hazardous waste. Under the statute, we were to have promulgated those implementing regulations by June 1978. We did not do so, and as a consequence, among others, we were sued by a series of environmental and public interest organizations, resulting in a court order issued last fall setting forth a schedule which the agency had recommended to the court for final promulgation of these regulations in December of this year.

The agency is fully committed to meeting that schedule and we think our track record since last spring is very good in meeting our own internal timetables. And, in fact, every timetable we have scheduled for our own management of this effort we have exceeded. So we are in sight of the timetable set forth in the court. We think we can continue that performance.

The regulations were proposed in December of last year. They were subject to a series of public hearings across the country and a comment period which extended, for most elements of the regulations, through March 16 of this year. The agency extended the comment period with respect to some of the extraction procedures set forth in the proposed regulations, but all other elements of the comment period are closed.

We are now initiating the evaluation of the many comments received, both during the comment period in written form as well as the oral testimony which was received in these many public hearings. The committee might be interested to know that the rulemaking activity to date has produced the fact that these are a controversial set of regulations, that there are elements being criticized from all parties, and we expect that we will have an ambitious task in reconciling both these comments as well as fulfilling the mandate of the statute.

It might be informative for the committee to know that there are several themes of issues which have been raised. I might touch on several of these.

First of all, there has been comment suggesting the agency should subdivide hazardous waste into additional classes based upon the degree of hazard, and the application of this concept to the conditional exemption of small quantities of waste from the control system which we had proposed, 100 kilograms per month, and in the facility design and operating standards.

The second theme is the concern over the availability of insurance from the private insurance market to accommodate some of the financial responsibility requirements which have been proposed.

Another area of concern is the total exemption of certain waste categories from the hazardous waste regulation based upon legislative intent. A fourth category is the general concern with respect to the administrative and economic burden which will be placed upon the regulated parties by the new control program, especially



on those operators, generators and transporters who occupy the small end of the system.

We have set out specific efforts within the rulemaking process to answer some of the questions which have been raised. Additional contracts have been issued, and we will have our own staff analysis of some of these ideas.

[Testimony resumes on p. 98.]

[Mr. Jorlings prepared statement and summary statement follow:]

STATEMENT OF  
THOMAS C. JORLING  
ASSISTANT ADMINISTRATOR FOR  
WATER AND WASTE MANAGEMENT  
ENVIRONMENTAL PROTECTION AGENCY  
BEFORE THE  
SUBCOMMITTEE ON TRANSPORTATION AND COMMERCE  
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE  
HOUSE OF REPRESENTATIVES  
MARCH 27, 1979

I am pleased to be here today to discuss our progress in implementing the Resource Conservation and Recovery Act of 1976 (RCRA), amending the Solid Waste Disposal Act.

Events of the past year have clearly demonstrated the foresight of the Congress in enacting this critical environmental statute. The tragedy at Love Canal has shown all too clearly the unacceptable costs of improper hazardous waste disposal, both the pain and suffering experienced by more than 200 families evacuated from the site and the staggering financial cost of containing and cleaning up the wastes. Recent months have brought to public attention a continuing succession of incidents of poor and/or illicit management: the spraying of PCBs along 210 miles of roadway in North Carolina; the discovery of up to 100,000 barrels of discarded, unlabeled wastes in the Valley of the Drums in Kentucky; the leaching of quantities of arsenic and benzene from one dump site in Iowa into the Cedar River sufficient to be detected in water supplies of downstream communities; and scores of other cases in states throughout the nation. The hazardous waste program mandated in Subtitle C

of RCRA is designed to prevent such mismanagement from occurring in the future.

Less conspicuous but just as pressing are the problems faced by thousands of communities seeking to dispose of their municipal and commercial refuse safely. RCRA requires an inventory of all other-than-hazardous land disposal sites in the United States and the closing or upgrading of all sites classified as open dumps. Many communities are moving to resource recovery, creating energy and recovering materials as the preferred approach to managing their wastes.

EPA believes that the mandates set forth in RCRA provide a sound approach to our nation's solid waste problems. We have developed a number of proposed amendments which we believe will strengthen and improve the Act. These amendments are presently being reviewed within the Executive Branch. We will transmit them to this Committee as soon as possible. In our testimony today we would like to review with you what has been accomplished in the 29 months since October 21, 1976 when RCRA was enacted. My testimony will discuss the following topics:

- the control program for hazardous wastes  
as mandated by Subtitle C of RCRA
- activities with respect to other-than-hazardous  
wastes as mandated by Subtitle D

- our program to foster resource conservation and recovery
- our activities to assist state and local governments in addressing the siting problem for solid waste facilities, and
- our research program

#### Schedule for Rulemaking

As a preliminary matter, I would like to discuss our current schedule for promulgating the major regulations mandated by the Act.

As you know, the Act contains statutory deadlines for certain rulemaking activities. Last summer, four environmental groups gave notice of their intent to commence legal action against the Agency for failure to promulgate Subtitles A, C and D regulations by the statutory deadline. EPA met with these groups in August and held a public meeting in September to discuss the Agency's proposed promulgation schedule. Apparently dissatisfied with EPA's proposed schedule, three of the environmental groups, the State of Illinois, and a solid waste management trade association sued EPA in mid-September and early October seeking a court order compelling EPA to promulgate final regulations three to nine months earlier than proposed by EPA.

On January 3, 1979, Judge Gesell (Illinois vs. Costle, Civil No. 78-1689 et al. D.D.C. January 3, 1979) found that the EPA "is proceeding in complete good faith and conscientiously to promulgate the regulations in dispute, and that a more expedited schedule does not appear at this stage to be in the public interest. . ." He ordered that each of the regulations be promulgated in final form no later than the dates indicated below:

<u>Regulation</u>	<u>Final Promulgation Date</u>
Sections 3001, 3002, 3003, and 3004	December 31, 1979
Sections 3005 and 3006	October 31, 1979
Sections 4004(a) and 1008(a)(3)	July 31, 1979
Section 4002(b)	June 30, 1979
Section 1008(a)(1)	January 31, 1980

He also ordered EPA to file with the Court a quarterly statement indicating any departures from the detailed implementing schedules, the reasons for the departures, and the Agency's current best estimate of final promulgation dates.

EPA regrets that the complexities of the regulatory task did not permit us to meet the statutory deadlines. I can assure you that I share your deep concern about the

need to have a regulatory structure in place for managing the growing problem of hazardous waste. After two years of experience with the administration of the statute, I am convinced that the Agency is moving with all dispatch that is prudently possible given the substantive requirements of the Act and the need for rigorous compliance with administrative and legal procedures in the rulemaking process. Nonetheless, I can also assure you that Mr. Costle and I are committed to promulgating final hazardous waste and solid waste regulations within the court ordered schedule. With that as background, I will now describe our progress in implementing the various mandates in the Act.

#### Subtitle C - Hazardous Waste Management

EPA has been actively involved in the area of hazardous waste management for a number of years. The Agency first proposed legislation for hazardous waste control in 1973, and followed this with legislative proposals in 1974 and 1975. In the fall of 1976, with the passage of the Resource Conservation and Recovery Act, our efforts to implement a comprehensive program began.

The events of the last year--in particular the tragedy of Love Canal--have brought the hazardous waste problem forcefully before the public. It is now clear to everyone that hazardous waste represents one of the most serious and

difficult environmental problems, one which will require the best efforts of all levels of government, of industry, and of the public to solve.

#### Status of the Regulations

Subtitle C of RCRA provides for a program to manage hazardous waste from its generation to its ultimate disposal. Subtitle C contemplates the establishment of national standards to assure consistency of hazardous waste management practices across state lines, and the development of strong state hazardous waste management programs compatible with those national regulations. RCRA also provides authority for the Federal government to regulate the management of hazardous waste in a state if that state chooses not to do so.

There are seven specific hazardous waste regulations. Six of these have been proposed:

- ° Section 3001, Identification and Listing of Hazardous Waste
- ° Section 3002, Standards Applicable to Generators of Hazardous Waste
- ° Section 3003, Standards Applicable to Transporters of Hazardous Waste
- ° Section 3004, Standards Applicable to Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities

- Section 3006, Authorized State Hazardous Waste Programs (Will be repropose; see below.)
- Section 3010, Preliminary Notification

The regulations for Section 3005--Permits for Treatment Storage, or Disposal of Hazardous Waste--and Section 3006--Authorized State Hazardous Waste Programs--are now being integrated with similar provisions of the NPDES system under the Clean Water Act, and the Underground Injection Control Program under the Safe Drinking Water Act. These integrated regulations are scheduled to be proposed within a few weeks.

Five public hearings concerning the proposed Section 3001-3004 regulations were conducted by EPA and the Department of Transportation during February and March in five cities from coast-to-coast. The comment period for these regulations closed on March 16, except for one specific aspect of the Section 3001 regulations.

Public response to the proposed regulations was quite extensive. About 1,200 people attended the hearings, and about 250 people made oral presentations. In addition EPA has received hundreds of written comments, many of which are very extensive.

Further, the Regulatory Analysis Review Group chaired by the President's Council of Economic Advisers elected to review these proposed regulations. EPA has received comments from the RARG and will review them along with all other public comments received.



the hearings, and about 250 people made oral presentations. In addition EPA has received hundreds of written comments, many of which are very extensive.

Major issues raised during the public comment period included the following:

1. Subdivision of hazardous wastes into two or more classes based on degree of hazard of the waste, and application of this concept to the conditional exemption of small quantities of waste from the control system and the facility design and operating standards,
2. Availability of facility insurance from the private insurance market,
3. Total exemption of certain waste categories from hazardous waste regulation based on legislative intent, and
4. Administrative and economic burden of the new control program, especially on small businesses.

In anticipation of these issues, EPA has already begun new studies to provide additional information to guide decisionmaking for the final regulations.

In addition to EPA's efforts to develop the national management system for hazardous wastes, the incidents at

Love Canal and elsewhere have illuminated a related but distinct problem of hazardous waste management, that pertaining to past or present incidents of improper disposal. Unfortunately, the magnitude of this problem was not understood by EPA or the Congress at the time that RCRA was enacted, with the result that RCRA is not well suited to remedying the effects of past disposal practices which are unsound.

The one tool which RCRA does provide is the imminent hazard authority under Section 7003. We believe that Section 7003 authorizes us to take enforcement action against the owner of an active or inactive site if the site is presenting an imminent and substantial danger to human health or the environment. We can effectively exercise this authority where any person contributing to the imminent hazard is financially and otherwise able to remedy it. However, where this circumstance is not present, Section 7003 is not an effective tool.

Nevertheless, we have increased our efforts to use Section 7003 authorities and authorities under other statutes to control past and current problems. The Agency last November launched a campaign to evaluate the status of particular disposal sites which may pose an imminent hazard. These efforts have resulted in a series of actions noted in my written statement. Other Section 7003 cases are in preparation and will be filed as soon as they are completed.

The problem of improper past disposal is made more difficult by the fact that many former waste disposal sites have now been abandoned. In many cases the property used for waste disposal has changed hands; in other cases the companies responsible for the problems are either no longer in business or do not have the resources to pay for cleanup of the sites. As I mentioned earlier, Section 7003 is often not effective in these situations. Further, certain of the sites operating today may very well be abandoned in the future.

At the present time there are no resources at any level of government--Federal, state, or local--to cover the costs of containing or cleaning up some of the most damaging sites. And the potential costs are very large. Based on very limited data, a recent EPA contractor study sought to develop an "order of magnitude" estimate of the number of problem sites nationwide and the costs for cleanup. The contractor concluded that the number of significant problem sites may range between 1,204 and 2,027; that the non-recoverable costs for emergency treatment at these sites may range between \$2.9 and \$4.9 billion; and that the non-recoverable costs for ultimate remedy may range between \$21.1 and \$35.5 billion. While these are the best estimates available at this time, they are very rough estimates and as a result a great many uncertainties remain as to the number of sites requiring cleanup and the associated costs.

EPA is presently working with other Federal agencies on an approach to solving the abandoned site problem. Our current thinking is that a fund should be established for responding to problems caused by abandoned sites as well as spills of oil and hazardous materials. The fund would be used for immediate cleanup and mitigation; permanent remedy; restoration of material resources; and to a limited extent third party damages related to property and some forms of economic livelihood.

With regard to financing the fund, we feel that the burden of responding should be shifted from the general taxpayer to those most closely connected to commercial practices involving the substances in question. Difficult issues involving equitability among parties contributing to the fund and collection and administration of such a fund must be resolved. We expect to develop recommendations on how to establish and administer the fund and to forward a legislative proposal to Congress in May of this year.

#### Subtitle D - State or Regional Solid Waste Plans

For other-than-hazardous wastes, RCRA very properly recognizes that prime responsibility for environmentally sound disposal and for resource recovery must rest with state and local government. However, RCRA prescribes a limited but important Federal role in moving towards

elimination of environmentally unacceptable disposal of solid waste on land.

#### Criteria for Land Disposal

Under Section 4004, EPA is directed to issue Criteria for classification of all land disposal facilities as either environmentally acceptable or unacceptable. The Criteria were proposed on February 6, 1978. Final promulgation is scheduled for July 1979.

Within one year after promulgation of the Criteria, EPA is to publish an inventory of all unacceptable sites ("open dumps") identified according to the Criteria. We now estimate that several hundred thousand land disposal facilities will have to be evaluated. The one-year period allowed in the law for this undertaking is generally recognized to be insufficient because of the number of facilities and the need to make definitive technical determinations regarding each of them.

The states will evaluate the individual disposal sites with EPA financial and technical assistance. Each state will phase its evaluations according to priorities based on the potential impacts of facilities on health and the environment, the availability of state regulatory powers, and availability of Federal and state resources.

EPA intends to utilize both the authority of RCRA and of Section 405 of the Clean Water Act for the development of an overall regulation on the management of municipal sludge.

State Solid Waste Management Plans

Subtitle D of RCRA includes provisions for the development and implementation of state solid waste management plans.

States are eligible to receive financial assistance under Subtitle D if the state plan has been approved by EPA. The state plan must provide for identification of state, local, and regional responsibilities for solid waste management, the application and enforcement of environmentally sound disposal practices, and the encouragement of resource recovery and conservation.

The guidelines for identification of regions and agencies for solid waste management required by Section 4002(a) were published on May 16, 1977. These guidelines suggest criteria and procedures for the formal identification of regions by Governors and the joint identification by state and local officials of the agencies that will develop and implement the state solid waste management plan.

All states selected state agencies to develop the state plan. In many states, responsibilities in planning were also assigned to county and regional governments. Most states identified counties, cities, and towns as responsible for the implementation of solid waste management plans.

The guidelines for development and implementation of state solid waste plans required in Section 4002(b) were proposed on August 28, 1978. The guidelines are being

revised based upon public comment and are scheduled for promulgation in June 1979.

For FY 1978, Federal financial assistance to the states for Subtitle D programs totalled \$10.8 million compared with \$3 million in 1977. For FY 1979, appropriations to the states for Subtitle D activities totalled \$15.2 million. The President's FY 1980 budget requests \$10 million for financial assistance to states under Subtitle D. The budget also indicates that funding of Subtitle D will be phased out over a five year period. This five year program will give the states time to develop alternative funding sources. Some state solid waste programs already support themselves by various user charges; we believe this offers a sound long-term approach. As reported in the latest annual report of the Council on Environmental Quality, our nation presently sends over \$8 billion annually on the management of other-than-hazardous wastes. We believe that it is most appropriate that state user charge systems secure a small proportion of this expenditure and devote the funds to providing a firm and predictable financial foundation for essential regulatory and planning activities at the state, regional, and local level.

#### Resource Conservation and Recovery

Conservation and recovery of energy and materials from solid waste is one of the major objectives of RCRA. I would

like to describe our programs to assist communities in planning and procuring resource recovery systems.

Progress in implementing resource recovery across the nation is being made, but at a pace so slow that it does not match the growth in waste generation. A major barrier to more rapid implementation is the fact that the procedures involved in implementing resource recovery are unique and complex. These procedures involve a series of technical, marketing, financial, legal, and organizational factors which must be brought together in a comprehensive, well-structured project planning and development process. Problems in many of these areas are often referred to as "institutional" constraints. Thus, despite the pressures of the solid waste problem, cities often fail to accomplish the preparatory steps for the implementation of resource recovery.

To help communities resolve these institutional problems, EPA has developed and is implementing a five-part program:

- Resource Recovery Seminars--For the past two years EPA has conducted resource recovery seminars in all parts of the nation. These two-day programs are designed for city managers, county commissioners, other state and local officials, and interested citizens. The seminars provide an overview of resource recovery technology and an explanation of the complexities of the resource recovery planning and procurement process and thereby assist local governments



in assessing the feasibility of resource recovery approaches in their community. The seminar program has been extremely well received.

- Development of State Resource Recovery Capability--

Under the planning guidelines mandated by Section 4002, EPA is encouraging the development at the state level of a capability to assist communities in the implementation of resource recovery systems. Several states and territories, including Connecticut, Massachusetts, Wisconsin, and Puerto Rico, have an authority or other governmental unit which can assist local communities in the planning and development of resource recovery systems. We believe that this capability should be developed in every state and are helping to support it through the Subtitle D state grants.

- Planning and Procurement Grants to Local Government--

As part of his Urban Policy, President Carter in March 1978 proposed a new program of grants to communities to assist them in the implementation of resource recovery systems. The program is designed to help cities move effectively through the difficult and complex planning and procurement process by providing financial assistance to hire capable in-house program managers and secure necessary consultative services.

The Urban Policy financial assistance program is based on the premise that effective project planning and

development will result in timely and successful implementation of facilities and/or source separation approaches without Federal funding of design, land, equipment, or construction. Though the capital costs of larger resource recovery plants are substantial, experience has shown that debt financing is available through normal channels for well conceived projects.

Congress appropriated \$15 million for this assistance program for FY 1979. Over 200 communities applied. Sixty-eight communities have been selected. EPA is now working with each community to develop a specific work plan and budget. The President's FY 1980 budget requests \$14.0 million for the second year of this program.

- Technical Assistance Panels--Under Section 2003 of RCRA, the Congress mandated the creation of a technical assistance panels program designed to provide state and local governments upon request with technical assistance on solid waste management, resource recovery, and resource conservation problems. A variety of types of assistance are available under this program. Each EPA Regional Office has a prime contractor and subcontractors capable of providing assistance on any solid waste management problem. In addition, EPA has developed peer-matching relationships with seven public interest groups. Under the peer-matching program, an official with experience on a particular problem can travel

to assist another community or state which is facing a similar problem. Assistance by EPA personnel is also available under the technical assistance panels program.

We will allocate expert assistance from the technical assistance panels program to each of the sixty-eight communities selected under the Urban Policy grants program.

- Evaluations--To assure that the latest information on resource recovery technology is available, EPA has an active evaluation program which seeks to develop information on the technology, technical reliability, economics, and environmental performance of operating resource recovery systems. That information is then disseminated to the public through the resource recovery seminars and the technical assistance panels program and through EPA publications.

EPA is aware of the critical importance of coordinating and integrating its resource recovery program with the programs of the Department of Commerce and the Department of Energy. In May 1978, we concluded an Interagency Agreement with the Department of Commerce defining respective roles and establishing a basis for close cooperation. Similarly, we are in the final stages of concluding a Memorandum of Understanding with the Department of Energy. The latter agreement defines distinct but complementary roles for the Department of Energy and EPA which will assist us in moving cooperatively towards the joint goal of rapid implementation of resource recovery in the United States.

### Siting of Waste Management Facilities

In order to achieve RCRA's objectives, solid waste management facilities must be provided for recovery, storage, treatment, and disposal of wastes. Yet across the nation it is becoming more and more difficult to secure sites for these facilities. Although the problem is most acute when siting facilities to dispose of hazardous wastes, significant difficulties are encountered when siting any solid waste facility, including those designed for resource recovery. The major stumbling block is public opposition. EPA is engaged in a number of activities designed to better understand and help to alleviate public opposition to siting, which are set forth in our written statement.

### Research

The research and development program was, for several years, focused toward the problems of municipal solid waste management. As the Agency's concern for hazardous waste control has increased since 1973, the research and development activities have been realigned toward hazardous waste problems. Fiscal Year 1979 marked the initiation of a program specifically concerned with industrial hazardous wastes. We estimate, at the present time, that approximately 80 percent of the program is directed toward the technologies required for managing and controlling hazardous waste. Our written

statement describes specific efforts of our research program which have supported the development of regulations.

The recent discoveries at a number of abandoned and poorly operated hazardous waste disposal sites and the rule-making requirements of the Resource Conservation and Recovery Act relating to hazardous wastes have caused us to reexamine our entire solid waste research program. One of the Agency's research steering committees will be devoted to hazardous solid wastes. While a major portion of the program is currently directed to developing solutions to the problems of hazardous wastes, we are now in the process of reviewing the present programs and needed research initiatives.

This comprehensive review will not be completed until early summer. When completed, we expect to have a soundly planned research program that is well integrated with the Agency's hazardous waste program. We will also identify areas where resources can be redirected with the ORD budget and establish the overall priority of an expanded hazardous waste control technology program within the Agency's resource budget.

#### Conclusion

As I stated at the outset, the Congress showed great foresight in enacting the Resource Conservation and Recovery Act in 1976. The events of the past year have underlined and illuminated the serious environmental problems that improper solid waste management can create.

EPA has moved forward to implement the Act as rapidly as our resources and capabilities have allowed. While our accomplishments have not been as great as we might have liked, we believe that substantial forward progress has been made, and we look forward to further progress over the coming years.

Mr. FLORIO. Can this committee expect to receive the benefits of that analysis in the immediate future so it may be in a position to make any modifications to the law during the authorization processes?

Mr. JORLING. I don't think any of the information will bear on the basic authorization, but we will endeavor to keep the committee fully informed of both the record of rulemaking and the information generated pursuant to it.

Mr. FLORIO. One of the points you commented upon, the whole question of exemptions, levels is something the committee is interested in and would appreciate your thinking about so we may be in a position to make modifications in the law if need be.

Mr. JORLING. We would be happy to do so, Mr. Chairman.

I am trying to summarize in the interest of time as I know you have additional witnesses. I won't summarize the proposed regulations. You may have specific questions regarding them, which I would be happy to respond to.

There are several areas of concern outside the regulatory proposals we have made that the agency is concerned about and I am sure many others are concerned about regarding management of hazardous wastes. These logically fall into several categories. The first of these categories is whether or not the agency has authority to respond adequately to the accumulated burden represented by the abandoned waste site.

A second related question is, given the authority or assuming the authority, does the agency have sufficient resources? Does this agency or any agency have sufficient resources to address in a meaningful way the accumulated problem?

A third and very closely related issue is whether or not the imminent and substantial endangerment authority contained in this statute sufficiently recognizes the effects of the long-term exposure of the public as a result of past management practices.

I would like to state to you for the record that the administration is committed to generating a legislative proposal by mid-May which would, in conjunction with some other legislative proposals—one of which was submitted last week, coming from the Department of Transportation—represent a comprehensive scheme of response authority and funds to oil spills, hazardous substances spills, and accumulated hazardous waste site problems.

This proposal would basically have the elements of a fee, a fund, and the authority of that fund to make disbursements so the public can be adequately protected from the consequences of both spills and accumulated site problems. We hope to have that. As I say, we are committed to having it by the middle of May, and I expect we will make that commitment.

Mr. FLORIO. In the interim, I would like to suggest that you make us recommendations as to how to modify the existing law. I realize the concept of the funding proposal is something which cannot be dealt with through this authorization process, but I am convinced that there are changes in the law with regard to burdens of proof and the ability to permit EPA to become involved to a much greater extent under the imminent hazard jurisdiction which can be dealt with by this committee during the authorization process.

We would appreciate your specific references as to where you have run into difficulties under the existing law and your recommendations as to how we can work at resolving those difficulties.

Mr. JORLING. Mr. Chairman, we do have, in addition to a basic request for a reauthorization of the statute, a series of amendments proposed which will be transmitted by the administration in the very near future, I hope by the end of this week. Some of those are directed at the hazardous waste program. Others are addressed to other elements of RCRA. So those will be forthcoming.

We will also be evaluating the experience we are gaining—or not gaining, in a negative sense—with the imminent and substantial endangerment process. We have now initiated the first imminent and substantial cases under RCRA. There are now two pending. We will be filing and referring to the Department of Justice two additional cases today, so that we are beginning to develop a track record with this authority and are able to make some judgments.

I know the Department of Justice has expressed an interest in evaluating the legislative authority in the imminent substantial endangerment area, not only under RCRA but the Safe Drinking Water Act, the Clean Water Act, and elsewhere, to make recommendations as to whether or not that authority can be proved so that we have a better tool.

We now have some cases being filed. We are going to see some courts issue some opinions, and we hope that will help us evaluate this. But we will be making those kinds of recommendations to you and will be happy to work with you and your committee in other areas that you have identified, areas which are identified as needing repair.

With respect to the magnitude of this task, I don't think any of us can understate it. We have not, as many have recognized, had a systematic study previously conducted which gives us empirical data on the magnitude and extent of the abandoned hazardous sites problem. We have been attempting through given resources and authority to develop some order of magnitude estimates of this problem.

We have now generated a report through a contractor, which I would like to summarize because I think it does give the committee the benefit of the best estimates which are available to date and gives for the record an estimate which others can comment on, either to approve its accuracy or to counter its conclusions.

The potential costs are very high. Based upon very limited data, we have a contractor's study which has used two different methods to estimate the total number of hazardous waste sites across the country. This was a deductive process starting with a universe of sites which have been estimated by our region to have contained significant amounts of hazardous wastes. The total numbers there range from 32,000 sites to 50,000 sites.

Based upon an evaluation exercise, that number was then screened for an estimate of those which may represent significant and acute problems. The number there reduces down to 1,200, to roughly 2,000. The contractor then estimate the types of costs which would be associated with bringing these facilities into a secure situation. The first level of costs are those necessary on an emergency basis to prevent acute damages from resulting to public

health or the environment, so-called level I. Another estimate was generated which is referred to in the report, which we will make available to the committee, as level II costs, pursuing a final remedy, an ultimate remedy at those sites. No third party costs, however, were included in any of these estimates.

Based upon this data, the average cost per level I treatment per site was estimated to be \$3.6 million. The average level II cost per site is \$25.9 million. If you take that and apply it to the range of sites, the 1,200 to 2,000, this results in a magnitude of possible burden, order of magnitude of burden of roughly \$3.6 billion to \$6.1 billion to level I costs; \$26.2 to \$44 billion for the level II costs.

There is no time estimate attached to that, so when these costs are actually incurred is not included. So there are obviously ways of managing this program over time. But it is a very substantial program.

Mr. FLORIO. Is the concept of significant problem site in any way synonymous with imminent hazard jurisdiction? Are we talking about a degree of seriousness which would allow the utilization of imminent hazard jurisdiction over those 1,000 to 2,000 sites?

Mr. JORLING. I think it is safe to say with respect to that screened down number that they represent an acute risk, and "acute" I am now using carefully to distinguish it for the moment from the imminent and substantial danger test that a court would have to find. It is our judgment that authority can be useful where the present owner of a site has wherewithal but there is a defendant who, when sued under the imminent and substantial danger enactment, could take actions which would in fact serve to meet the level I cost to prevent the site from causing further damage, or the level II cost which would be to apply permanent remedy.

Mr. FLORIO. Do you think then it is fairly important that this Committee act as rapidly as possible to define and expand the imminent hazard jurisdiction of the agency to, at a minimum, authorize you to initiate action over the significant problem site situation?

Mr. JORLING. I think the committee will find that it has to move across the spectrum very quickly, and that spectrum is that there are easy case imminent and substantial endangerment. We found maybe a couple of those. We hope to find many more in the near future where you have a defendant who can apply a remedy. When you begin to move from that situation, you are talking about shifting the burden to the public sector in some way, shape, or form, and there the problem becomes generating sufficient resources to accompany authority, so that when the actions are taken to protect the public, the actual tools, the implementation tools are also there to apply a remedy, and that is where we think that it is necessary to evaluate the imminent and substantial authority and the superfund authority together so that we can apply the respective tools under some general principles.

I think some of the general principles should be, one, that the effort first be, and the legal responsibility be on those who create the circumstances to begin with, so that that would be an operational principle. The second, as we move away from that, and that capability, and the basic underlying principle of the fund proposal we will be submitting, is, before you hit the general taxpayer you



assess a fee on those who are currently managing these types of materials on an equitable basis, so that those who are presently benefitting from the movement, management, and use of these materials bear the costs of those practices in the past, but that the two cannot be looked at independently.

The basic problem that we have identified with the abandoned site problem is much more than one of authority and our ability to gain access to Federal or State courts, but rather the generation of sufficient funds to accommodate these problems where they are most acute.

Mr. FLORIO. But isn't that a part of the justification for the imminent hazard authority, since an appropriate defendant who is not judgment proof provides you with the authority you need to seek remedies and reimbursement from the appropriate defendant when one can be—

Mr. JORLING. That is correct, and that is where I would like to work with the committee and involve in that activity the Department of Justice. The imminent and substantial endangerment authority has not been used across EPA-wide authority very extensively or successfully.

Mr. FLORIO. Why?

Mr. JORLING. Up until these activities, under the RCRA, TSCA imminent substantial endangerment authority, the agency brought three actions under other statutes with very similar types of authorization. There were three of those actions. Of the three, only one resulted in a successful issuance of a court order. The others were dismissed.

The principle reason they were dismissed is, in those courts' estimate, the necessity to draw approximate cause relationships between a given identifiable party and the damage being incurred on the part of another identifiable party. When we are talking in the area of movement of materials through groundwater, there are many legal barriers which can be raised to that proximate cause chain, and where we are concerned with the imminent and substantial endangerment authority is the degree of proof that rests with the Government to make the connection between action and effect.

Mr. FLORIO. I suggest that you in conjunction, perhaps, with the Justice Department, provide the committee with information to assist in modifying that degree of proof. Perhaps as Mr. LaFalce pointed out, this would shift the burden from the state perhaps to the operator or the person who is generating the waste out of the land fill.

Mr. JORLING. I think that is a very good area for inquiry. The other element of the same problem is, our tradition of law, especially common law damages, is that the action of injunctive authority and the issuance of injunctive authority by a court is used when there is an imminent, in the more traditional sense of imminent, danger.

When we visualize the potential of an explosion damaging a neighbor, we can see where that law came from, but where we are talking about exposure of people through, for instance, ground water contamination over a 50-year period, as a result of a carcinogen, does the concept of imminent encompass that? We think it

should, but that is an area where we must direct some inquiry in our experience.

Another area I wanted to bring to the attention of this Committee is in the area of taking the various authorities that EPA presently administers, EPA and the States, and developing management and other institutional structures to integrate that authority and implement it coherently and comprehensively. There is a very direct relationship in the hazardous waste program to some other authority within EPA, primarily the underground injection program under the Safe Drinking Water Act, which I testified on to a subcommittee of this committee, and the various permitting authorities under the Clean Water Act.

We are integrating in both regulation and hopefully in management these authorities with the hazardous waste permit authority so that we will have in effect a closed loop of regulation over the movement of these toxic materials in the environment. We will give the committee the benefits of these efforts.

We will be proposing this consolidated permitting package within the next month, and you will see exactly how we are trying to bring these authorities together, to implement them together. There are other devices, such as the State-EPA agreement, which is an effort to take the differences which occur in each State, the differences which exist in each State and enter into an agreement with our regional administrator and that State as to how that authority, that mix of authority is going to be implemented in that State to achieve cost effective and most rapid implementation of the authorities we have all been granted.

Mr. FLORIO. As you can appreciate, there is great apprehension, particularly where there has been a capital investment, that those who have complied with regulations under different statutes will now be asked to modify existing systems in accordance with the new regulatory scheme. I am sure that you will look to avoid, as much as possible, asking people who have complied with past EPA regulations to make any major modifications in compliance with another regulatory system under your control.

Mr. JORLING. There is no question that this can occur, and our job is to avoid that criticism that has been made, sometimes with accuracy, that the agency does not know how its various arms are acting on a particular facility or a particular operation, and we expect to place tremendous emphasis on that in both rulemaking and implementing activity. The one area the previous witness mentioned is a case in point. That is, under the BAT or under the effluent guideline program of the Clean Water Act, many of those clean water requirements include requirements that have in them lagoons, surface impoundments as part of the treatment train, and that these regulations under the hazardous waste program will include those as facilities, as sites that must be permitted as on-site hazardous waste facilities.

The question is, how do we make sense out of those two sets of requirements? We are spending a considerable amount of time during the rulemaking period understanding that relationship and trying to come up with a meaningful response to it that avoids the criticism that we have implemented these two authorities in a way which does not make sense. There are serious problems. Surface

impoundments are serious problems. They are liquid; unless they are prevented from reaching the ground water, they tend to carry chemicals of one sort or another to the ground water very quickly. So, we are very concerned about surface impoundments generally, and surface impoundments as a part of the treatment train under the Clean Water Act raises that to another level of uncertainty, but we are addressing this, and we will hopefully come up with a sound proposal which accommodates the statutory mandates in both areas.

Mr. FLORIO. If that concludes your statement, I have a question with regard to funding.

Mr. JORLING. Yes, think it would be useful now to turn to statements.

Mr. FLORIO. At a time when everyone is becoming much more conscious of the area of funding, how do you justify a \$3.5 million decrease in a request for this program?

Mr. JORLING. That is an aggregate summary of our budget in the Office of Solid Waste, and what it reflects, Mr. Chairman, is in effect a shift of resources from some of the RCRA implementation schedules to the—and I am trying to find the exact figure so I can give you a better feel for what this represents to the hazardous waste area, and I might add that within the overall budget process at EPA we are seeing shifts from various sectors into others. If one area is to grow under budget stringency, it is necessary to bear that growth or to observe that growth by cuts in other areas, and we have seen, and I will just mention for a moment in general the general budget for 1980 which has been submitted to the President for EPA, shows three growth areas: hazardous wastes and RCRA; Safe Drinking Water Act, in the area of public water supervision, primarily directed at the organic contaminants of drinking water; and the general area of the implementation of the Toxic Substances Control Act.

Those are the three gainers in the 1980 budget, and there had to be some losers, and those losers are widely dispersed through the agency. One of the losers is the loss you have identified, but if you look at the general growth of agency resources since we have been able to effect the budget, we, this administration, the budget that we were implementing when we first came into office which is the fiscal 1976 and transition into fiscal 1977 budget, we had 21 people on the hazardous waste program in EPA. That grew to 71 in 1978; in 1979 to 134, and the budget request for 1980 is 202. You notice I am using the currency of people. That is the much more limited resource within the executive branch and the one we must work within and compete for very rigorously.

There are concomitant increases in the program area in dollars and in grants to States, so there have been very significant increases in the hazardous waste program, but that has been at the expense of some of these other elements within the solid waste program as well as in the Clean Water Act. There are substantial decreases. There are some other decreases in other R. & D. budgets across the agency's activities, but that is a reflection of the stringency of the budget and the need to prioritize, to use a probably ungrammatical word, within the agency to achieve growth in the areas which are most pressing.

Mr. FLORIO. If you were to be provided, with a 50 percent increase in funds how would you use that most effectively with regard to hazardous wastes,?

Mr. JORLING. The accurate answer is yes.

Mr. FLORIO. How would you?

Mr. JORLING. Oh, how would we, or whether we could? I think the basic area will be in the implementation of the regulatory structure, but we would for a moment set aside the past practices problem, but right now our estimates, given our resources and ability of the States to build up with both our grants and their own funds, show we will still need additional resources to issue the permits necessary to bring the on-and-off site facilities into compliance with the regulation, Our present projections show it will take something on the order of 10 years to issue permits to the universe of permitted sites out there that require permits.

If we had more resources, we could foreshorten that period extensively and achieve some very important public policy benefits. It is in that area, in the actual implementation, where shortages in resources are going to cause delays, and are going to cause problems across the country in bringing this scheme of comprehensive management into being, so that I think the area will be in technical evaluation of permitted sites, and in the actual more typically enforcement side of permits, the issuing of permits and incorporating the technical requirements. That is one of the high areas. Certainly, with respect to the abandoned site issues and problems, it is clear that the agency, and we have stated before the Investigation Subcommittee of this Committee and others, has not had and has not devoted significant resources to any kind of systematic effort to identify, investigate, and evaluate sites which are out there. We have been doing it on an ad hoc basis. We have been doing it to the best of our ability.

We are presently evaluating the President's 1980 budget request with a view to determining whether or not the information, the evidence that supported that process led us to the proper conclusions with respect to that kind of activity, and we are making those evaluations presently within the agency, and that may lead to an additional request in that area.

Mr. FLORIO. As part of the State plans, there is a requirement that existing land fill operations be inventoried. What would be your thought if the law were to be modified so as to require as a condition for a plan being approved a system whereby abandoned land fills and sites would be required to be inventoried as well.

Mr. JORLING. In the inventory itself, there is no distinction between the universe of hazardous and other than hazardous as far as the inventory. The inventory is to screen that distinction in part. It is a very difficult task for the States and ourselves to evaluate sites and make judgments as to whether they fall on the sanction side, the open dump side, and must therefore go through either upgrading or termination within a 5-year period, or whether they fell into the hazardous waste category, or whether they are acceptable. That is a considerable task. The statute expected it to be performed, I believe, in 18 months. It will not be performed in 18 months.

We now in the President's 1980 budget have stated that the inventory activity, 100 percent federally supported, will phase down over a 5-year period and will terminate, and by the end of that time it is assumed that the States will have adopted self-financing mechanisms to carry out that part of the regulatory program which under RCRA has no Federal backup. It is a State program, and if the State fails to carry it out it is not carried out in that State. There is no Federal backup.

With respect to the expectation, we think it is a sound one. There is \$8 billion, there is in excess of \$8 billion spent managing that type of waste in this country. We think the States could come up with permit fee systems which would enable them to finance that part of the program with this phased down period under subtitle D, which we have committed ourselves to in the 1980 budget, but tying the present inventory to an inventory of hazardous sites, I would to, before I gave a firm opinion that may lead to a counterproductive result, in that we may not get either task performed.

Mr. FLORIO. It was not really to inventory hazardous sites, but to inventory abandoned sites. It is my understanding that the law does not now require that there be an inventory of abandoned sites as part of the management plan.

It seems that you cannot ascertain whether or not an abandoned site is hazardous until you find out if there is an abandoned site. There is currently no requirement that the state plan do anything about determining where the abandoned sites exist. If there were, perhaps the expertise of EPA could be ultimately utilized to inventory or examine those abandoned sites to see if there is some cause for concern about hazardous deposits.

Mr. JORLING. Now I understand your suggestion, I think it is a good one. I think it should be directed specifically in the statute to the use of the grant funds under the hazardous waste grant authority by the States, but we have attempted to devote it, direct it to those ends, but it might be useful for this committee and the Congress itself to assess the use of those funds and the priority in the use of those funds.

We will also as I mentioned as a part of this ongoing evaluation be looking at how we can assist States, how we can, together with the States, come up with a better inventory, investigation, and evaluation of these sites, and what kinds of resources and the mix of resources that should depend upon.

Mr. FLORIO. The committee is interested in the exemption provision of the proposed regulations. What percentage of the total waste materials generated in this country can be attributed to these exempt categories?

Mr. JORLING. Well, I think for purposes of your question there are two types of exempt categories. One is an outright exemption that we have incorporated in the proposal that a generator of 100 kilograms or less per month is not in this system, so that there is that flatout exemption. It is our estimate that the amount of waste that will be lost to the system, that is, implicit in that determination, is not large. It does, however, concern us a great deal, especially some specific waste streams, and we are trying to evaluate whether there is a better way of accommodating that. I do not have

the figures at the tip of my fingers that we can supply them, because they are a part of the rulemaking record. How much waste is not incorporated?

Mr. PLEHN. It is in the neighborhood of less than 1 percent.

Mr. JORLING. Less than 1 percent of the hazardous waste and the national basis is—

Mr. FLORIO. Of course, that is a quantitative evaluation.

Mr. JORLING. That is correct, not a qualitative evaluation.

Mr. FLORIO. And you have already indicated that one subject of debate at the public hearings was whether or not there should be an attempt to role in a qualitative factor.

Mr. JORLING. That is right.

Mr. FLORIO. Because it is obvious that not all chemicals are of equal toxicity or potential danger to the public.

Mr. JORLING. I should add, there is one accommodation. As more and more wastes from chemicals become identified as being bad, there is in the regulation and in the statute the voluntary incorporation into the system so that if a small generator, less than 100 kilograms per month, for instance, of a substance which he desired to protect himself from the consequences of, he could participate in the program by voluntary expression and move into it so that some of the wastes, while they are exempted by the operation of the regulation, can be brought into the system by the voluntary action of the generator.

The other type of exemption is, and the use of the word "exemption" is probably not appropriate, but it is an attempt with special waste streams to tailor a regulatory response that recognizes some unique differences either in the production of huge amounts generally do not go off site, such as utility combustion wastes, or certain mining waste. These special waste streams go to develop a specific set of national standards in the national rule governing those waste streams, and we have identified several of those special waste streams in the regulation, and set norms for the practices governing those wastes in the regulation.

I have mentioned a couple. They also include the oil and gas brine problem, because of the material which comes from the deep strata is often radioactive and has some high metal content. To set specific norms, we think that is a more appropriate way, rather than bringing those special waste streams into the general framework of cradle to grave regulation that we associate more typically with materials which are generated in a producing plant or a manufacturing plant of one sort packaged into drums or various containers and either sent onsite or offsite, which is what the general formula of the regulation is directed at, so that those are the two types of exemptions we are most concerned about leaving out, those more acutely toxic chemicals under the 100 kilogram per month exemption we proposed.

I should add, however, that there is considerable controversy from other perceptions, other interests, namely those who are concerned about impact, that the number of 100 should be raised to a considerably higher number, and one of the suggestions has been 1,000 kilograms per month. Then you do move from a percent to a much larger universe of waste which would be outside the system, and we are very concerned about that.

Mr. FLORIO. You also say that you are concerned about the problem of exempted materials equality. What is it you are doing? Are you doing anything?

Mr. JORLING. We are trying to evaluate whether or not there are some waste streams below the 100-kilogram cutoff which we would like to bring into the system in regulations, but the problem associated with qualitative review is very complicated, and places great burdens on the Government. Each of these waste streams are hazardous to in the degree in its disposal practices. Some of them are very inherently threatening. Some types of chemical wastes are inherently threatening. Others are threatening to the type of management practice that has followed what the disposal practice would be if it is in or out of the system.

Defining that range of circumstances for the myriad of hazardous wastes that we have is a burden we cannot meet and get regulations out. We cannot make a qualitative analysis of each waste stream. We must categorize on the basis of what the statute requires, that is, improper disposal. We have chosen some models, some hypothetical as the threshold for improper disposal. We could have chosen others.

One that has been suggested and one which I very seriously entertain is whether or not to use as the determination of whether a substance was hazardous instead of the hypothetical we have used, which is a gravel pit with a leaching time and what have you, is to just hypothesize that the material was dumped in a schoolyard. Would that material be hazardous if improperly disposed of in that way? That expanded the universe of substances very broadly, so we chose the one that we did, but making qualitative analysis over all of these substances is extremely difficult.

Mr. FLORIO. Is it inconceivable that in an area dense with chemical or petrochemical industries that a disposal facility specifically catering to exempt generators could not be totally unregulated? You have a situation where you have a disposal facility, and all it does is take in materials from those who do not produce more than your threshold amounts, so you could have a rather extensive facility and be totally unregulated.

Mr. JORLING. That is a real possibility. That device was used in the proposal for waste oils. Basically, the mechanism we have used by shifting some of the burdens off of the generator to the transporter in certain circumstances, if he picks up under an agreement with generators these waste oil products.

With respect, however, to the other classes of substances, we do not feel that the big chemical waste streams will result in much waste falling under that kilograms. There are some generators we are concerned about. Electroplaters are one we are very concerned about. They have heavy metal concentrations in their sludges, and some of the operators generate less than 100 kilograms per month, but they do not seem to.

They may not be amenable to the type program that you have suggested, but a State could certainly or a regional authority could move in that direction within the fabric of these regulations.

Mr. PLEHN. The only point I wanted to add is, this is an exemption for generators. It is not an exemption for disposal sites. We do provide and make it a point that this exemption is conditional on



the generator taking the wastes to a land disposal or other facility which meets the requirements of subtitle D, so it is not an unconditional exemption, but the site which would receive the wastes, unless, I guess, hypothetically, there were a site which only took from very small generators. That might be out, but they would still be required to be permitted under the RCRA program.

Mr. FLORIO. Under section 3002, the permitting system for active land fill operation, could that criteria be applied to inactive landfill operations where the owner of the inactive landfill site is still available?

Mr. JORLING. Comments were made during the evaluation of these recommendations by many parties that there was within the statute authority to extend the facilities subject to the program to include under some circumstances practices or sites which are no longer active or parts of sites which are no longer active.

We are evaluating that. When we do evaluate it, one of our immediate concerns is that for the near term, our resources and the State resources are going to be devoted toward issuing permits, toward bringing on line sites which can receive this waste, so that we do begin to manage wastes effectively, and that leaves aside whether or not we would devote money to the abandoned practice.

I think our evaluation will focus on whether or not we come up with an alternative scheme for the abandoned problem rather than adjusting the regulatory scheme to accommodate that problem.

Mr. FLORIO. Should that be expanded under your imminent hazard authority?

Would there not be the opportunity for the EPA to assume jurisdiction over permitting abandoned facilities, determined to be imminent hazards, to provide for their own upgrading?

Mr. JORLING. The process of permitting itself does not accommodate the problem. What we need, first of all, if we have an accountable owner, people who are competent owners, then the hazard authority may be used to compel the remedy, in effect to bring that facility into compliance with whatever the permitting lines of requirements would be, but with respect to a noncompetent owner permitting will lead nowhere. You still have to have some influx of resources to bring that site into some sort of protective status, so that the permitting activity itself without more is not sufficient to accommodate the abandoned site activity.

It does provide a measure as to whether or not that site is secure, and one about which we can make judgments of the long-term protection of the public health and welfare, but the action of permitting is just not. Our section 3004 permitting and 3002 permitting criteria do not anticipate permitting inactive sites.

Mr. FLORIO. Even if there is an identifiable owner?

Mr. JORLING. Even if there is an identifiable owner.

Mr. FLORIO. You make reference to an EPA contractor who has determined the number of hazardous sites. Do you have a list by name and location of those sites?

Mr. JORLING. The report—

Mr. FLORIO. Particularly those 1,000 to 2,000 sites that formed the basis for the nationwide estimate.

Mr. JORLING. We can provide sort of the background lists that are available that the contractor worked with and then his selec-



tion from that down to a group of 22 sites upon which they made a detailed evaluation which then led to the program of extrapolation to the larger numbers again. There was a statistical kind of exercise. The report itself describes his methodology. After you have looked at that and other lists are needed, then we can figure out how we can generate those lists, but the report was an extrapolation. It was not an empirical report. It took a known list of sites. It took a statistical sample and then made productions based upon various assumptions.

Mr. FLORIO. So it is not actually an inventory of such sites. They are random samples?

Mr. JORLING. That is correct. There was a projection based upon a sampling methodology.

Mr. PLEHN. It was really an attempt to get an assessment of the order of magnitude of costs that might be involved, and therefore it was based upon, as Tom said, on a number of kinds of reasonings, but it was just to get at that order of magnitude.

Mr. FLORIO. I have difficulty appreciating how anyone could rely upon its accuracy. As a matter of fact, it is interesting. You talk about 1,231 up to 2,337 sites, and now you are telling me it is really an extrapolation from a statistical sample.

Mr. JORLING. In the report it says the last three digits are not statistically meaningful. We recognize the problem.

Mr. FLORIO. So then you would not be in a position to determine if any of these sites were Federal sites that in some way were involved with Federal contractors. I would be interested in finding out to what degree the Federal Government has contributed to the existence of any of these sites.

Mr. JORLING. It is my understanding the report does not include within its universe any federally cited facilities. In other words, under Defense Department establishments. Is that not true?

Mr. PLEHN. Of the 230 sites which are the first sort of sample with which they worked, it is my remembrance that 23 of those were Federal, or 10 percent.

Mr. FLORIO. That 10 percent was again the statistical projection?

Mr. PLEHN. No; that is not a statistical projection, but of that sample—

Mr. FLORIO. So you would be in a position to provide for the committee the specifics of those sites?

Mr. PLEHN. On those sites?

Mr. FLORIO. The 230.

Mr. PLEHN. Yes.

Mr. FLORIO. We would appreciate that and any other specific information. We would also appreciate a synopsis or statement of the methodology used for that projection.

Mr. PLEHN. That you find in the report, Mr. Chairman.

Mr. JORLING. One of the things in trying to identify, investigate, and come up with some data on this, one of the most accurate sources of information has been the public. When you look at the Denver example with the radiation sites or the Love Canal site, as soon as one site becomes a media event, the first thing that happens, our public officials local and State, people become informed by people who have worked there in the past that they knew of another site.

In Kentucky, we went from one site to seven sites in about a 24-hour period, so that that mechanism is an effective one.

One of the proposals we are evaluating is to put in an 800 number in our regional offices and then advertise it and allow people to call in information regarding sites.

Mr. FLORIO. I can appreciate that as a tactical approach which is desirable. I can also appreciate that the people of this country probably don't feel much optimism or safety when you tell them that the only way we are finding out about these sites is that when something occurs, or when people in the neighborhood disclose other things. That means we almost have to wait for something to explode or have some dangerous effect before we can find out about other area situations.

Mr. JORLING. There are other devices which can be used. We are also interpreting aerial photographs and looking at SIC Code classifications and trying to go back into the industry on a voluntary and sometimes requested basis to generate information. We are trying a series of things.

Mr. FLORIO. Wouldn't a more productive approach be suggested by the gentleman from Louisiana, Mr. DeVille, which was to provide the states with the wherewithal to solve this problem? Specifically, States should be required to inventory abandoned sites and be provided with the financial and technical assistance to uncover some of these places.

By definition, your resources are not going to be satisfactory or sufficient for you to go around the country locating these facilities.

Mr. JORLING. I do not think we expect that under any circumstances. Most of this work is going to be done necessarily by the States, and we are trying to make both our technical and financial assistance available to do that, but to do that in a systematic way across the country, through the States, is more resources than any of us have available.

Mr. FLORIO. We are also talking about the States providing their own resources. Part of your projected plan is that they will raise resources, requiring inclusion of this action in the State plans and early financial assistance while the plan goes into operation. However, the pressure at the State level, it seems to me, is on the States to do something as well.

Once the site is uncovered, the pressure is on immediately. I think the States are not going to be able to resist the drive to levy fees, and therefore will go into operation at the State level to deal with these problems.

Mr. JORLING. I think the States have an obligation. I think many States are beginning to become very aggressive in pursuing these remedies.

Mr. FLORIO. I appreciate your being here so long. You have suggested a number of forms which I have heard before, and again today, that there is a comprehensive approach to the trust fund concept coming from the administration. You said something about May. My understanding is that there is an administration proposal coming forward dealing with the oil spill superfund, and now you are telling me that there is a comprehensive approach coming forward that I suspect will deal with the oil fund as well as the chemical fund.

How is this compatible, that we are having an administration proposal in a specific area and will have an administration proposal in a comprehensive area?

Mr. JORLING. It is a complicated area. What we have transmitted last week, the administration is an oil only superfund proposal. It was, however, crafted so that it is based upon existing, to the extent that there are overlapping relationships and interactions, it is based upon the existing authority of section 311 of the Clean Water Act, providing Government with authority to act to mitigate, respond, and clean up and prevent damage occurring to the public health and welfare as a result of discharges of oil.

In the accompanying documentation with that proposal it is stated that the other pieces of this overall comprehensive scheme will be compatible with that, and compatible with existing law, and either they can be enacted—it is possible to enact them separately or together, but that they will be coherent and they will not abrade each other.

We will have a cost-effective type system. It is everyone's guess there will be a single fund, that we will not have a multiplicity of funds, and that any time we talk about this comprehensive scheme, we are talking about a fee system which can be assessed on oil easily for the oilspills, and then attached to other movement, including oil, because it is a feedstock for most of the organic chemicals along with natural gas, and then the inorganic chemicals to respond to these other remedies, but the comprehensive scheme is one which would not necessarily be viewed as a single piece of legislation, but rather a series of pieces of legislation which admit of being grafted into a comprehensive single bill, or coming along incrementally or sequentially, but fitting together in their implementation in the executive branch.

So, that is the kind of scheme that we are trying to facilitate. The concern that we have, not just we, but what we are trying to act is as a catalyst. Many committees have jurisdictions over these various pieces. We are trying to work with each of the committees so as to insure that it is a comprehensive scheme, one that does fit, one that makes sense in the end and accommodates all of the acute problems being felt by the public.

Mr. FLORIO. Are you saying, in fact, that although there are now discussions, and there may be legislation that would implement an oil superfund, conceivably a chemical superfund, and I heard something about an asbestos trust fund that is being put together, that your intention is to make these various funds as compatible as possible, or are you ultimately talking about all of the resources into a fund and then financing remedial action out of that joint fund?

My key point is, that the bottom line is one pot of money. The comprehensive approach you are suggesting, does it contemplate having a unified trust fund of money out of which these various areas could be dealt with?

Mr. JORLING. Yes, it does, Mr. Chairman. One of the experiences behind that is instructive. The section 311 I refer to has a fund in it. It is a generally appropriated fund. However, it is not a fund based upon some fee system or other structure. It is a generally

appropriated fund, but it does have recovery against those who cause the event the moneys were spent to respond to.

It was appropriated at \$35 million in 1974, I believe, late 1973 or 1974, and there have been expenditures from that to accommodate oil only because the regulations on the hazardous side have not yet gone into effect. That was referred to by Congressman LaFalce earlier. We now have those regulations in a form which we expect to take effect in June.

Mr. FLORIO. Can the definition of oil be expanded in anyway to take into account oil-based chemicals?

Mr. JORLING. We think so, yes, and that is what we will be proposing. The fund started this fiscal year at \$14 million. That is what it was down to. As of the first of March, it is down below \$4 million, so we haven't that much resource left, even in those areas where we presently have authority and the institutional structure to respond, and we need to supplement that fund with this fee, and we cannot distinguish between oil hazardous substances and abandoned sites within that. It will have to be a single fund in the end.

The question is whether it will be enacted incrementally or comprehensively.

The Merchant Marine Committee stated when I testified before them they were very concerned about the hazardous side of this problem, but they thought they had a vehicle which could be enacted now with oil, and they expressed the sentiment that they were going to move forward, but they were sympathetic with the idea that that legislative proposal would be amenable to either change during its own legislative process, or if it is enacted earlier, amenable to grafting on of these other elements, and that is our interest.

Mr. FLORIO. Does the administration regard the EPA as the lead agency rather than the Department of Transportation?

Mr. JORLING. The Department of Transportation has had the lead and continues to have the lead on the oil superfund part. There is, however, an administration position on how these pieces fit together. We are the lead agency in developing the recommendation due by mid-May.

Mr. FLORIO. Gentlemen, we appreciate your coming, and we certainly look forward to working with you. We will be working with you long term on some of these proposals, and also short term for purposes of getting your thoughts as to how this law might be modified and approved prior to the authorization consideration.

Mr. JORLING. Thank you, Mr. Chairman. We welcome your help on that.

[The following information was received for the record:]



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

APR 19 1979

OFFICE OF WATER AND  
HAZARDOUS MATERIALS

Honorable James J. Florio  
Chairman  
Subcommittee on Transportation  
and Commerce  
Committee on Interstate and  
Foreign Commerce  
House of Representatives  
Washington, D.C. 20515

Dear Mr. Chairman:

At the hearing on hazardous waste on March 27, 1979, you asked what exemptions or exclusions were included in our proposed Resource Conservation and Recovery Act (RCRA) regulations which appeared in the Federal Register on December 18, 1978.

Those proposed regulations include the following exemptions or exclusions:

(1) Households

All household wastes have been excluded because we believe that Congress intended to exclude them from the hazardous waste regulatory system (S. Rep. No. 94-988, 94th Cong., 2nd Sess. at 16).

(2) Generators of Small Quantities

The Agency has proposed that persons who produce and dispose of less than 100 Kg (approximately 220 lbs.) of hazardous waste in any one month be exempted from the recordkeeping and manifest requirements of Section 3002 provided the wastes go to a facility which has a permit issued pursuant to Section 3005 or which meets the Criteria to be promulgated under Section 4004. The 100 Kg/mo. level was

developed as a result of an effort to exclude persons whose generation of small amounts of hazardous waste would not pose a substantial threat to human health or the environment. EPA estimates that the cut-off point of 100 Kg/mo. for hazardous waste generation will allow control of 99.5 to 99.9 percent of potentially hazardous industrial waste but will at the same time exclude up to 60 percent of the generators in the manufacturing industries. Other options with respect to small generators were put forward in the proposed regulations and comments on all alternatives were solicited (43 Fed. Reg. 589-71).

(3) Retailers

All retailers except gasoline stations that accumulate more than 100 Kg/mo. of waste oil have been excluded from the Section 3002 regulations because retailers rarely generate hazardous waste in excess of 100 Kg/mo. All hazardous waste generated by retailers (including any quantities of more than 100 Kg of hazardous waste in a given month) must be taken to a facility which is a permitted hazardous waste facility or one which meets Section 4004 Criteria.

(4) Farmers

The Agency also has proposed exempting farmers from Section 3002 requirements if they comply with certain limited standards (\$250.29; 43 Fed. Reg. 58979). Pesticides and pesticide containers are likely to be the only hazardous waste generated by farmers. Standards developed pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act can be used to control the disposal of excess pesticides and pest containers. Professional pesticide applicators, on the other hand, are not exempted from coverage under the hazardous waste program.

(5) Sewage Sludge from Publically Owned Treatment Works (POTW's)

Sewage sludge from POTW's has been excluded from these regulations because these wastes

will be regulated pursuant to guidelines to be promulgated under Section 405(b) and (d) of the Clean Water Act. (Section 1006(b) of RCRA requires the Administrator to integrate all provisions of RCRA to the maximum extent practicable with other regulatory programs developed by EPA.)

(6) Agricultural Wastes and Mining Overburden

Agricultural wastes which are returned to the soil as fertilizers or soil conditioners and overburden resulting from mining operations and intended for return to the mine site (unless specifically listed in Section 250.14) have been excluded from these regulations because these wastes were specifically cited in the House Report of the Committee on Interstate and Foreign Commerce, H.R. 14496, (pp. 2-3), as not to be considered discarded materials within the meaning of RCRA.

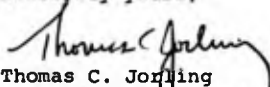
(7) Special Wastes

In the course of preparing the Subtitle C regulations the Agency realized that some portions of certain large volume waste may be hazardous and thus will come within the purview of the Subtitle C regulatory scheme. The Agency has very limited information on the composition, characteristics and the degree of hazard posed by these wastes; the limited information the Agency does have indicates that such wastes occur in very large volumes, that the potential hazards posed by the wastes are relatively low, and that the wastes generally are not amenable to the control techniques developed under Section 3004. Therefore, in the Section 3004 regulations, EPA has proposed that all facilities which handle these "special wastes" be exempted from most of the storage standards and the treatment and disposal standards. However, in order to provide for some protection from special wastes, EPA has proposed special standards for each type of special waste. This is a "first stage" control scheme to be in effect while we pursue studies and investigations to provide appropriate regulation of these wastes. Special wastes include cement kiln dust, utility waste (fly ash, bottom ash, and scrubber sludge), phosphate mining and processing waste, uranium and other mining waste, and gas and oil drilling muds and oil production brines.

- (8) We have proposed that POTW's which accept hazardous waste for treatment and underground injection wells where hazardous waste are disposed of not be required to meet Section 3004 standards. We feel that wastes disposed of in these facilities are (or will be) adequately regulated under the Clean Water Act and Safe Drinking Water Act.

We are now in the process of reviewing all comments received in response to the proposed regulations as well as the statements and data presented at the public hearings held during February and March. Thus, all these proposed exemptions/exclusions except those under (1) and (6) will be reconsidered before final promulgation of these regulations. Please call or write to me if I can be of any further assistance

Sincerely yours,



Thomas C. Jorling  
Assistant Administrator for  
Water and Waste Management



Mr. FLORIO. Our next witness will be Mr. Leslie Dach of the Environmental Defense Fund.

Mr. Dach, we welcome you to the committee. Let me say at the outset that I have reviewed your testimony in great detail and was tremendously impressed with its specificity. Your testimony will be made a part of the record in its entirety, and we ask that you to proceed in a summary fashion.

**STATEMENT OF LESLIE DACH, SCIENCE ASSOCIATE,  
ENVIRONMENTAL DEFENSE FUND**

Mr. DACH. Thank you, Mr. Chairman.

I appreciate your remarks. I will summarize as best I can, and by listening to your questions this morning, I will skip those parts already addressed.

My name is Leslie Dach. I am a science associate with the Environmental Defense Fund. EDF is a national not-for-profit public interest environmental organization with over 45,000 members. Through litigation and administrative and congressional lobbying, EDF attempts to reduce unnecessary human exposure to toxic chemicals. Concerning RCRA, EDF has submitted written comments, to EPA on a number of proposed regulations, and along with a number of organizations brought suit against EPA for failure to meet the statutory deadlines for implementation of RCRA.

In that suit, the court ordered EPA to promulgate formal regulations implementing RCRA by December 31, 1979.

I would like to first spend a small amount of time addressing the 3001 regulations which are really the lynchpin of the entire, subtitle C program as they define hazardous wastes.

As presently proposed, the 3001 regulations exempt significant amounts of waste from RCRA. The environmental impact statement suggests that up to 65 percent of the wastes from chemical and allied product industries is currently exempted under the proposed 3001 regulations.

As currently proposed, waste is considered toxic only if it contains above a specified amount of substance for which there is a national interim drinking water standard or if the waste or the process generator are listed by EPA.

Mr. FLORIO. You probably heard the response to my question regarding the amount of hazardous waste exempt. As I recall, the response from the previous witness was something like 1 or 2 percent of the total hazardous waste flow. I think you just mentioned 65 percent.

Mr. DACH. It is my understanding that the 1 percent relates to the amount exempted simply by the 100 kilogram exemption under the proposed 3002 regulations.

Mr. FLORIO. I see.

Mr. DACH. The second way something gets defined as a hazardous waste is the process list. Both of these approaches have great faults. The first is that the 14 chemicals listed under the Drinking Water Act are clearly only a small part of the universe of hazardous chemicals. Even the Federal agencies themselves have regulated significantly higher numbers than 14.

The process list has similar gaps. It was generated really by historical accident rather than any thorough evaluation of all of

the waste generating industries in this country. Just to give some examples of the kinds of things that are left out, the kinds of things that are not regulated under section 3001 or by RCRA. I would just like to point to some things like asbestos, tris, both of which are clearly known human carcinogens regulated by other Federal authorities, but the waste from the processes manufacturing or using these materials are not included under section 3001.

I just mention these as two examples of many to show that the process list is by no means complete. In order to upgrade the current definition, EDF suggests that first EPA lengthen the list of toxic chemicals that makes a waste hazardous. The list should be expanded to include chemicals already identified by Federal regulations as hazardous. Those include pesticides, priority pollutants, and other substances regulated by EPA and other regulatory agencies.

We also suggest that they lengthen the list of processes included in the 3001 regulations. Just a preliminary look at available documentation shows that there are many processes which have been identified as producing hazardous wastes which have not been included in the current EPA proposals. For example the California manifest system or other use reports generated by the Government indicate and identify a number of processes not currently included.

We strongly disagree with the proposed extraction procedure included in section 3001. EPA currently uses this procedure in a highly quantitative fashion to identify wastes which if unregulated would form leachates with hazardous constituents. However, as the procedure now stands, it has severe methodological faults which render it totally incapable for any quantitative use.

EPA studies indicate that proposed extraction procedures seriously underestimate the hazardous constituents of leachates generated in municipal landfills. In addition, municipal landfills are not the only alternative to unregulated disposal. As Mr. Jorling mentioned, unregulated disposal of hazardous wastes could result in wastes being dumped on the sides of the roads in fields or schoolyards.

For all of these reasons, we suggest that the extraction procedure be abandoned as it is presently constituted for a more qualitative measure of hazard. EPA should attempt in section 3001 to maximize the universe of wastes included in the program, specifically because of the need to include wastes under the manifests and recordkeeping requirements.

So, in cases where EPA might conclude that the use of the 4004 landfill is sufficient for final disposal of waste without including a manifest or recordkeeping system requirement there would be no way of guaranteeing the waste would ultimately get there and no way for the facility operators to know what they are handling, or to trace back potential contaminants to that facility and take remedial action.

I would like to switch now to section 3002, EPA's proposal to specifically exempt certain hazardous waste categories. You have already discussed that in some detail this morning with Mr. Jorling. I would just like to say that our reading of the legislative history of RCRA indicates that costs were not to be considered as a factor in the finding of hazardous waste, and EPA's contention that

RCRA is silent on this issue may be true, but its contention that the legislative history is also silent is misleading.

Our written comments, which I will be glad to submit for the record, contain a detailed analysis of the legislative history supporting this point. In addition, not even the economic data generated by EPA would justify the small generator exclusion currently proposed. There is no information currently indicating severe economic impacts on small generators either in terms of plant close-downs or job losses.

The absolute figure for compliance costs with the system for the 100 kilogram per month generators is approximately \$4,000 a year, and EPA has nowhere shown us that that \$4,000 figure would have serious adverse impacts on those small generators in absolute terms.

You asked before what that 1 percent figure indicates. It exempts over 300 million pounds of hazardous waste so even though it is a very small percentage of the overall universe of waste, the universe itself is so large that less than 1 percent still constitutes a severe environmental risk.

I would like to turn now to section 3004 regulations—again—something that you have already touched upon, which is the use of the permitting system to apply to inactive sites.

It is clear that inactive sites that no longer receive hazardous wastes but are owned or operated by the original owner or operator pose a severe environmental problem all across the country. EPA has defined inactive sites to even include inactive portions of otherwise active facilities, and would exempt those from regulations. For example, a company could have a number of trenches, and all of a sudden, the day RCRA goes into effect, close one trench and move their facility to another trench, and the first trench would be totally exempt.

The subcommittee on oversight and investigation spent the last few days looking at the S area landfill in Niagara Falls. That landfill, I understand, has been made into an inactive site, and therefore would be exempt from RCRA regulations despite its clear environmental hazards. Moreover, the advent of the RCRA program requirements is likely to generate an even larger number of inactive sites once the regulations go into effect.

It is clear that there will be great incentive for substandard facilities to take in vast amounts of hazardous waste before RCRA goes into effect, thereby saving generators the burden of paying for high disposal costs later on, and then for those facilities to simply close down completely or partially rather than invest the capital necessary to meet the RCRA requirements. The definition of disposal in the act, in our mind, provides clear legal authority for permitting inactive sites, and we urge EPA to do that. EPA's contention that the imminent hazard section of RCRA is sufficient to deal with inactive sites seems to be highly misleading. The imminent hazard action is highly resource intensive. It requires the generation of large amounts of detailed information and as Mr. Jorling indicates, the agency's resources are simply unable to come up with a large number of imminent hazard actions a year. The use of the permitting system would shift the burden of ground water, monitoring, identification, and analysis to the people respon-

sible for making the sites hazardous—in the first place operated them.

Through the permit system, EPA's resources would be relieved of the need to go out and find sites.

Mr. FLORIO. In view of that fact that the States are going to have enough problems and difficulties in permitting existing facilities, how do you feel about the point made that they are probably going to take 10 years to permit all prospective sites.

Mr. DACH. First, we would hope that a fund at the Federal level and at the State level would include fees for administrative costs as well as for remedial action for abandoned and inactive sites, and that those funds—similar to what has been established in numerous States—would be used to supply resources for permit writers and permit approval as well as remedial actions.

We feel strongly that at least for the major waste generators, the major chemical companies, that there will be a large degree of voluntary compliance with the program, even while EPA is getting around to individually checking permits. We have attempted to add another incentive by requiring that all sites under interim status meet the requirements within 6 months of promulgation of the regulations. If there was no certification that those interim sites met those requirements by 6 months, they would not be able to receive their final permit, so that even though EPA is unable to actually look at each individual site during that interim period there would be much greater control through voluntary compliance.

I would like to turn now to the siting issue. EPA has recognized and admits that hazardous waste landfills are not a long-term solution to the hazardous waste problem, that given our current limitations about the understanding of disposal technology, even the best constructed fill is likely to leak and leach over the long term.

We therefore feel that to the extent possible these sites should be put in places where if there is a problem that they will do the least damage—that EPA maximize its ability to force planning through RCRA and require through the State plans that States survey all of the available areas within their State and categorize aquifers according to their present and potential use, and use that as an aid to placing hazardous landfills only in places of the least importance in terms of ground water sources.

Turning now to the note system, EPA has attempted to achieve a flexibility of waste specific types of permits through the note system. We feel, however, that this is misguided for a number of reasons. Congress, in enacting RCRA, gave EPA the authority to issue both mandatory standards and nonmandatory guidelines, and the procedure to be followed with respect to different sections of the act was clearly spelled out. In section 3004, it is our opinion that Congress specifically provided that standards be established by regulation. Such regulations will be promulgated according to the EPA and would have the force of law and could only be changed by regulation.

By contrast, the guidelines EPA is authorized to publish under other sections of the act, for example, section 1008 or 3006, would be nonbinding and nonenforceable. However, the note system as

presently proposed by EPA would permit de facto amendments of the 3004 requirements without any need to comply with the EPA rules. There would be no public disclosure, no public oversight of these rather major changes. From a policy perspective, we are also worried about the note system. While we agree with the agency's desire to provide flexibility in the 3004 regulations to take advantage of site specific and waste specific characteristics, we feel that the discretion given local permit writers to grant variances is far too broad.

The absence of this broad variance factor from RCRA is not accidental on the part of Congress. The legislative history is replete with indications that Congress intended the Administrator to establish uniform Federal standards for hazardous waste disposal. We feel that the extensive granting of variances through the note procedure would seriously undercut the achievement of this national objective.

In order to achieve a compromise and combine the need for flexibility and the need to assure that variances are only given when deserved we have suggested that the present 3004 requirements be divided into three categories. The categories would be dependent upon the importance of the requirements to achieving environmental protection and kind of evidence needed to be analyzed to support a variance.

In the first class, we would fit in requirements for which all existing notes should be eliminated. These would be requirements, for example, on siting which were so important that no variance at all should be given, or were so highly technical that there is not current information based upon which to base a variance.

The second class of requirements would be those for which variances through the note procedure were permitted only by EPA approval and not by approval through the State or local permit writer. These kinds of requirements would include those that were of severe environmental importance and for which the technical information was rather rigorous in terms of the need for analysis. In that case, we would feel that only EPA would have the resources to appropriately analyze that information.

The third class of requirements would be those of lesser importance, for example, security or fencing, which we would agree with the current plan to allow State permit writers to grant variances.

I would like to turn now to the waste specific management practices. We have heard a lot and EPA has heard a lot about their need to change the 3004 requirements in order to make them more waste specific, to take into account the degree of hazard of waste and to modify their requirements according to those lines.

While we agree with that concept, we feel that it must be promulgated and instituted in a very, very careful fashion. We feel that designing waste specific requirements may be easiest for reactive, corrosive, and ignitable wastes. However, for toxic hazardous wastes which constitute our major worry under this act, we firmly believe that given the present state of scientific knowledge, it is impossible to classify nonthreshold toxic chemicals on the basis of potency, and that therefore, the 3004 standard should not be rewritten on the basis of that parameter.

We do suggest, however, that EPA pursue, to the extent possible, the use of bioaccumulation, biostability and leachate data, rather than potency data, in order to create different categories of hazardous waste facilities.

I would just like to point out that with regard to all the suggestions for minimizing current 3004 requirements based on waste specific characteristics, we cannot emphasize enough that EPA should proceed only on the basis of rigorous and convincing scientific evidence and that the burden should remain squarely on the waste generator to prove that a reduction in the required standards will not violate any of the environmental safeguards inherent in the act.

It should also be recognized not all waste specific changes in the requirements will lead to lower cost impacts and less environmental protection. For certain chronic toxic hazards that are extremely biostable, bioaccumulative or have exceedingly high leaching potentials. We think the proposed 3004 standards are not sufficient to protect the public health. In these cases landfilling is simply unacceptable because of our inability to guarantee long term containment. Instead, for certain of these chemicals, incineration or chemical or biological degradation should be required in the regulations.

Finally, I would just like to mention some of the ideas that we have had to date about possible amendments to RCRA, realizing that we have only begun to look at these in detail because of the press of having to comment on the regulations themselves. We have already discussed the need for a superfund legislation, and I think you would agree with the general feeling that it needs to cover the administrator's cost for implementing the program, identification of abandoned sites, emergency remedial action for those abandoned, inactive, or currently active sites that require work with a provision for reimbursement by the responsible party and permanent reclamation of abandoned sites.

Also, we feel that there should be amendments in two other areas. First in S. 3008 eliminating the 30-day waiting period in terms of the compliance orders. There seems to be agreement that in many cases we might face the situation where generators or disposal operators will not to follow the law, waiting for EPA to come out with a compliance order, and then waiting 30 days to begin shipping their waste to an approved site.

We would like to see thought given to either eliminating or severely narrowing that 30-day waiting period.

Second, we would like to see consideration given to broadening the imminent hazard provisions of the act. As was mentioned, an imminent hazard legal action requires a very high burden of proof. EPA itself has to go out and do the monitoring and analysis necessary to support that action, so we suggest thought be given to the idea of giving EPA another authority, perhaps triggered by a significant hazard or significant risk classification which would allow EPA to go out and force the responsible person to actually take monitoring themselves and thereby generating that information on a much quicker basis.

Finally, we agree with the need for some legislative consideration being given to the issue of siting at the very least, the need to

maximize. as I mentioned before, the planning process, so that more information is generated up front on a variety of alternative and available sites before a final site is selected.

[Testimony resumes on p. 147.]

Thank you.

[Mr. Dach's prepared statement follows:]



Environmental  
Defense  
Fund

1525 18th Street, NW, Washington, D.C. 20036 • 202/633-1484

March 27, 1979

TESTIMONY OF THE ENVIRONMENTAL DEFENSE FUND  
BEFORE THE HOUSE SUBCOMMITTEE ON TRANSPORTATION AND COMMERCE  
OF THE COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE ON THE  
ENVIRONMENTAL PROTECTION AGENCY'S IMPLEMENTATION  
OF THE RESOURCE CONSERVATION AND RECOVERY ACT

Good Morning. My name is Leslie Dach. I am a Science Associate with the Environmental Defense Fund (EDF). EDF is a national, not-for-profit, public interest environmental organization with over 45,000 members. Through litigation and administrative and Congressional lobbying, EDF attempts to eliminate unnecessary human exposure to toxic chemicals. Concerning the Resource Conservation and Recovery Act (RCRA) (42 U.S.C. §6901 et seq.), EDF has submitted written comments on EPA's proposed regulations implementing §§3001, 3002, 3004, 3010, and 4004. In addition, EDF, along with a number of other organizations, brought suit in U.S. District Court over EPA's failure to promulgate certain RCRA regulations by the October 21, 1978 date designated in the Act. In that suit, the Court ordered EPA to promulgate final regulations implementing RCRA by December 31, 1979.

I. INTRODUCTION

This nation's current hazardous waste management practices are an environmental catastrophe of staggering proportions. American industry generates over 96 billion pounds of hazardous waste a year. Of that amount, which is roughly equivalent to the total weight of



every car now on the road, less than 10% is disposed of properly. The rest seriously threatens the water we drink, the air we breathe and the environment we enjoy. Included in this 96 billion pound figure are chemical poisons that kill and debilitate -- chemicals that cause cancer, birth defects and nervous system damage. Often these are chemicals that have already offended the public sensibility and have made the headlines of our newspapers and television news -- chemicals like asbestos, PCBs and kepone.

The threat to groundwater is particularly serious. Over half the American population relies on groundwater for its drinking water supply. Almost one fifth of America's population relies on groundwater from individual wells, wells without treatment systems -- so that polluted water goes directly from the well into people's bodies. Groundwater is an extremely fragile resource. "It doesn't clean itself like surface water. Once dirtied, it stays that way for hundreds of years. Polluted groundwater travels like a slug. The pollutants don't mix well with the surrounding water and, therefore, the chemicals remain highly concentrated.

The disease and dislocation caused by improperly managed hazardous waste are not figments of some radical environmentalist imagination. They are already upon us, and new disasters are discovered regularly. Groundwater supplies in towns like Toone, Tennessee, and Grey, Maine, have been poisoned, and citizens forced to find alternate sources of drinking water. People in Love Canal, New York, have been forced to leave their homes. Hundreds of others would like to leave, but can find no buyers for their much devalued property. Residents of Love Canal exhibit extraordinarily high rates of birth defects and other illnesses.

These publicized incidents are only the tip of the iceberg. EPA estimates that there may be at least 50,000 hazardous waste dump sites across the country.<sup>1/</sup> A recent EPA study indicated that at 86% of the industrial land disposal sites investigated, hazardous materials had migrated into water supplies off the premises of the site. In over half the sites, groundwater had been contaminated to the point where it violated EPA's drinking water standards.<sup>2/</sup> The status of surface impoundments is similarly bleak. EPA indicates<sup>3/</sup> that most of the hundreds of thousands of surface impoundments holding hazardous wastes are unlined and unmonitored.

The costs of inadequate hazardous waste regulation are astronomical. Cleaning up a dangerous hazardous waste dump costs much more than properly disposing of that waste in the first place.<sup>4/</sup> For example, it would have cost only \$1.4 million to properly dispose of the waste in Love Canal. The estimated cost to the State of New York to clean it up is over \$23 million. That figure doesn't include the costs of the physical and psychological damage suffered by residents of that area. Over \$2 billion in damage claims have been filed to cover those losses. In another famous example, someone paid \$75,000 to have PCBs dumped on the roads of North Carolina. It would have cost only \$100,000

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1/ Fred C. Hart Associates. Preliminary Assessment of Cleanup Costs for National Hazardous Waste Problems, U.S. EPA, February 23, 1979, at 25. [Hereinafter "Preliminary Cost Assessment"]

2/ The Prevalence of Subsurface Migration of Hazardous Chemical Substances at Selected Industrial Waste Land Disposal Sites, EPA/530/SW-134, October, 1977.

3/ Surface Impoundments and Their Effects on Groundwater Quality in the United States -- A Preliminary Survey, EPA/570/9-78-004, June, 1978.

4/ "Proper Hazardous Waste Disposal Is Cheaper," EPA Administrator Says," Environment Reporter, March 9, 1979 at 2082.

to dispose of those PCBs in an environmentally safe manner. The cost to the State of North Carolina to clean up that mess is now estimated at between \$2.5 million and \$12 million.

The price society will have to pay for the years it neglected this issue has recently been estimated by EPA.<sup>1/</sup> Based on an estimated 1200 hazardous waste sites that threaten public health and the environment, the agency put the cost of cleanup at a staggering \$22 billion. This figure doesn't include the costs of cleaning up the groundwater itself. Nor does the \$22 billion include the monetary and psychological costs of the illness and death potentially attributable to these sites. Furthermore, the 1200 sites underestimates the number of sites that should be cleaned up. EPA indicates that as many as 34,000 sites might need remedial attention.<sup>2/</sup> In this time of worry about inflation, the proper anti-inflation strategy is to regulate hazardous wastes strictly.

Congress passed the Resource Conservation and Recovery Act to prevent Love Canals. Congress gave EPA a strong mandate to protect the public health and environment from the dangers of hazardous waste. The American people, judging from their reaction to Love Canal, want strong protection. The regulations we are discussing today are EPA's response to Congress' mandate and the public's demands. Unfortunately, while the proposed regulations will result in better hazardous waste management than is current practiced, they fall far short of guaranteeing public safety.

In our testimony today, EDF will focus on the problems with EPA's proposed regulations and the need for increased EPA manpower

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<sup>1/</sup> Preliminary Cost Assessment, supra.

<sup>2/</sup> Ibid. at 24.

to ensure compliance with such regulations. Because of time limitations, EDF will discuss only a small number of our criticisms and suggestions for the proposed subtitle C regulations. I refer the Committee to our March 16, 1979, submission to EPA for a more detailed account of our concerns.

## II. SECTION 3001

The §3001 regulations defining hazardous wastes are the lynch pin for the entire subtitle C program. Wastes not identified either by specific listing or by characteristic are completely unregulated by RCRA. As presently proposed, the §3001 regulations exempt significant amounts of toxic hazardous wastes from RCRA regulation. EPA itself indicates that 65% of the hazardous wastes generated by the chemical and allied product industry is currently exempted by the §3001 regulations.<sup>1/</sup>

As currently proposed, waste is considered toxic only if it contains above a specified amount of a substance for which there is a National Interim Primary Drinking Water Standard, or if the waste or the process generating it are listed by EPA. However, only a very small percentage of known toxic chemicals have been regulated under the Safe Drinking Water Act (SDWA). (Just citing the most obvious examples, known human carcinogens such as benzene, benzidine, beryllium, and asbestos, have not been regulated by SDWA.) The process and waste lists in §250.14 do not fill the gaps left by the SDWA standards. The lists have gaps a mile wide. They are based on historical accident rather than thorough science.

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<sup>1/</sup> Subtitle C, Resource Conservation and Recovery Act of 1976. Draft Environmental Impact Statement. U.S. EPA, January 1979 at 7-6.

They are limited to those processes or wastes for which EPA has constituent information, derived either from contract studies, damage reports, or other experience. If there hasn't been a contract study of a particular industry, its waste probably isn't listed. Even if there has been a contract, it usually only looked for selected waste constituents. It didn't identify all the hazardous waste produced by the target industry. For example, the study of the petroleum refining industry looked for one polynuclear aromatic; the study of the organic chemical industry looked only at selected processes and selected wastes within those processes.

There are numerous gaps even in the processes included in the list. For example, wastes containing the acknowledged toxic pollutants targeted for regulation under the Clean Water Act or pesticides cancelled or RPAred by EPA are typically included by the process list only if they are off-specification, spill clean-up residues, or containers (unless triple rinsed) which normally contained the material. In some cases a small number of wastes containing these materials from processes in which they are used or manufactured are listed. But the vast majority of wastes from processes manufacturing or using a hazardous material are not listed. For example, only a very small percentage of wastes containing the following known carcinogens are included in the §3001 regulations: captan, ethylene dichloride, DBCP, Tris, asbestos, and trichloroethylene. These examples are merely illustrative, and by no stretch of the imagination exhaustive of the holes in the process list.

EPA must drastically expand its proposed definition of toxic waste. EPA should lengthen the list of substances whose presence in

waste renders that waste toxic. At a minimum, the expanded list should contain the following chemicals when feasible analytical methodology is available: (1) pesticides; (2) the priority pollutants identified as hazardous under §§307 and 311 of the Clean Water Act; and (3) substances identified by EPA or other regulatory agencies, or identified in the scientific literature as toxic. EPA should also lengthen the list of processes in §250.14. Even a preliminary search of available documentaion indicates that the process and waste list, as currently elaborated, is far too narrow to protect the public health. EPA should make maximum use of the information available through the manifest system of states with existing hazardous waste regulatory programs. The California system has identified a number of processes generating hazardous waste that are not included by EPA in §3001. Even such rudimentary information sources such as the National Cancer Institute Bioassay Reports have not been utilized to their maximum potential by EPA. These reports identify carcinogens and their uses and therefore could serve as the basis for expanding the process list. In addition, EPA should, to the extent testing capacity exists, require toxicology tests as a part of the hazardous waste definition. Only such tests can identify hazardous wastes that simply because of historical accident have not been the subject of scientific scrutiny.

EDF strongly disagrees with the proposed extraction procedure (EP) proposed in §3001. EPA uses the EP in a highly quantitative fashion to identify wastes, which if unregulated, would form leachates with hazardous constituents. However, as the EP now stands, it has severe methodological faults and simply cannot be used for the regulatory purpose proposed by EPA. It attempts to model the leaching

potential of the waste if disposed of in a municipal landfill. EPA studies indicate <sup>1/</sup> that the proposed EP seriously underestimates the hazardous constituents of leachate generated in municipal fills containing hazardous wastes. Moreover, disposal of hazardous wastes in the municipal landfill is not the only alternative to regulated disposal. In many cases, unregulated hazardous wastes will end up on the sides of the road, in fields, or dumped into streams. For these reasons, EDF suggests that the EP be abandoned for a more qualitative measure of hazard. The EP should be changed so that it maximizes, rather than minimizes, the leaching potential of the waste. More detailed information about the leaching potential of wastes under different conditions should be used in waste specific §3004 regulations, not in defining hazardous waste per se.

Congress clearly intended that RCRA be a preventative statute, identifying those wastes that may pose a threat to health and the environment. Congress was especially concerned that all such wastes be subject to the manifest and recordkeeping requirements of the Act. Only these requirements ensure that potentially hazardous waste is disposed of in an environmentally safe way. The House Report states,

Most important of all, hazardous wastes will be deposited only at sites specifically for hazardous waste disposal, and incorporating the safeguards necessary to protect human health and the environment. <sup>2/</sup>

### III. SECTION 3002

The current EPA proposal exempts all farmers and retailers

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<sup>1/</sup> Ham, R. K., Anderson, M. A., Stegmann, R., and Stanforth, R. Comparison of Three Waste Leaching Tests. U.S. EPA Pre-Publication Report. [Hereinafter "Comparison"].

<sup>2/</sup> House Report No. 94-1491, 94th Congress 2d Session 3 (1976) at 28.

from the regulatory requirements of §3002. The proposal further exempts all generators who produce or dispose of less than 100 kg (220 lbs.) of hazardous waste per month. In addition, it indicates that EPA is considering exempting certain industries "where the economic impact is most severe," and raising the small generator exclusion so that generators producing less than 1000 kg (2200 lbs.) a month are exempted.

Insofar as these exemptions are based solely on economic or volume considerations, we believe them to be illegal. Such considerations are not valid indices of hazard. Moreover, the environmental arguments purportedly justifying the proposed exemptions are inadequate. EDF therefore considers the proposed exemptions to be contrary to the statutory intent and wholly unacceptable.

EPA's contention that RCRA is silent on the extent to which economic considerations are to be taken into account in implementing §§3001 and 3002 of the Act is misleading. While the Act itself is silent, the legislative history is not. The legislative history indicates that economic factors are not to be taken into account in defining a hazardous waste. Once a waste is defined as hazardous, all generators of that waste are to be covered by the requirements of §3002. EDF's written comments on subtitle C contain a detailed analysis of the legislative history of RCRA which supports our contention that Congress intended environmental hazards alone, and not cost, to be the determinants of a hazardous waste classification.

EPA has failed to show that the wastes it suggests to exempt are not hazardous within the definition of RCRA. To the contrary, pesticide waste generated by farmers, and hazardous waste generated by retailers are no different than the same waste generated by other



sources. Similarly it is clear that many wastes can be hazardous to health and the environment in quantities below one ton per year. The small generator exclusion as presently proposed will leave over 3 hundred million lbs. of hazardous waste unregulated each year.<sup>1/</sup> Taken to the extreme, it even allows the creation of disposal sites catering solely to small generators. Since the regulations are geared to generator size, such a site could dispose of hundreds of tons of hazardous waste as long as it all came from small generators.

#### IV. SECTION 3004

##### A. Applicability of §3004 to Inactive Sites

One of the major environmental hazards resulting from improper disposal of hazardous waste comes from inactive treatment, storage and disposal sites -- TSDFs no longer receiving new shipments of hazardous wastes but which are still owned by the person who owned the site while it was actively receiving wastes. Included in the inactive site category are inactive portions of otherwise active facilities. EPA, citing "enormous technical, legal and economic problems", is not proposing to apply §3004 to such facilities.<sup>2/</sup> EDF strongly disagrees with this decision. Valley of the Drums, Kentucky, and Toone, Tennessee are examples of such sites. Because many of these sites were built years ago, they have little if any environmental safeguards. Groundwater around these sites is rarely monitored for contamination.

The advent of strict RCRA permit requirements is likely to result in even more sites becoming inactive once the regulations go

<sup>1/</sup> §3002 Background Document at I-13.

<sup>2/</sup> 43 Fed. Reg. 58984.

into effect. There will be great incentive for substandard TSDFs to take in vast amounts of hazardous waste before RCRA goes into effect (thereby saving generators the burden of paying for the better management soon to be required) and then to close down, completely or partially, rather than invest the capital necessary to meet RCRA requirements. An TSDF operator could close down one pit or trench in a landfill while keeping the rest of the site operating. The closed section would be relieved of all RCRA requirements.

There can be no disagreement that inactive sites are a public menace.<sup>1/</sup> EPA admits this in the preamble.<sup>2/</sup> An EPA study has estimated that by 1980, there will be over 31,000 inactive hazardous waste disposal sites.<sup>3/</sup> Yet, protection of the public from the hazards associated with these facilities has been neglected by EPA. EPA has not vigorously searched out inactive TSDFs. In cases where inactive sites have been identified, the agency often failed to inspect these sites to determine the extent of or potential for environmental contamination. EPA's rationale for its inaction is a shortage of personnel needed to identify or inspect these sites and of money needed to pay for monitoring and analysis of air or water. The bottom line is that residents of neighborhoods in which inactive hazardous dumps are located don't know where they are and have no way of determining whether their water is safe to drink or their air is safe to breathe.

In the preamble to the regulations,<sup>4/</sup> EPA suggests that the

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<sup>1/</sup> See discussion of impoundments and industrial waste sites on p. 2 of these comments.

<sup>2/</sup> 43 Fed. Reg. 58984.

<sup>3/</sup> Preliminary Cost Assessment at 23.

<sup>4/</sup> Supra, n. 2.

imminent hazard section of RCRA (42 U.S.C. §6973) is sufficient to protect the public from the hazards associated with inactive TSDFs. EDF disagrees with the agency's conclusion. The bringing of an imminent hazard action is highly resource intensive. The agency simply does not have enough lawyers to bring the large number of imminent hazard actions that would be needed to effectively eliminate the inactive site problem. In addition, the burden of proof which must be met to sustain an imminent hazard decision is very heavy. The agency must have detailed information on the particular site and the effect of that site on health and the environment. Such information is not available for the majority of inactive sites, and, according to EPA, would take more time and personnel to generate than the agency has available.

EPA has failed to document the "enormous" problems it says will arise from applying the §3004 standards to inactive sites. EDF believes that there is legal authority in RCRA to apply §3004 standards to inactive sites, especially those which are part of, adjacent to or otherwise related to an active site. If an inactive site may discharge or leak hazardous wastes into the environment, the site in question falls within the definition of "disposal" in §1004(3) of the Act.<sup>1/</sup> Such a site is not "inactive" in terms of the continuing dangers posed by the hazardous waste it contains. All inactive landfills, landfills, basins, surface impoundments and storage facilities fall within §1004(3). EDF therefore urges EPA to require those who currently own and formerly operated now inactive sites to

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<sup>1/</sup> Section 1004 defines "disposal" as "the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into any waters, including ground waters."

comply with a subset of the requirements of §3004 and to obtain permits under §3005.<sup>1/</sup> At a minimum, owners of such inactive sites should have to meet the requirements for security, contingency plans and emergency procedures, limited visual inspections, groundwater and air monitoring, closure and post closure care and financial requirements for closure and post closure care. (Some modification of these requirements from those currently described in §3004 for active sites may also be acceptable.) Finally, the permit requirements for inactive sites should apply to those who own such sites on the date the regulations are published to discourage sale of the site prior to the effective date of the regulations in order to avoid compliance.

We believe that there are many advantages to the approach suggested above. Mandating these requirements will minimize the risks associated with inactive TSDFs as well as the likelihood of harm, and will identify damage in its earliest stages. The costs and resource requirements needed to identify and clean up these sites will be shifted from the agency to the person responsible for creating the site. In addition, our suggestion will minimize the incentive for currently active sites to become inactive once RCRA goes into effect.

B. Application of §3004 Standards To Active TSDFs With Interim Permit Status

EDF supports EPA's decision to apply certain §3004 requirements to sites holding interim permits. It is particularly important that strict requirements apply during interim status because the time a facility has to bring itself into compliance with §3004

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<sup>1/</sup> Only present owners who neither owned nor operated the site when it was active should be excused from meeting these requirements.

requirements is open ended. Legal authority for such interim requirements exists in §3004 of the Act. Compliance with the permit requirements of §3005 is only one of seven requirements Congress set forth for inclusion in §3004 regulations. The interim status provision of §3005(e) applies only in lieu of the specific requirements of §§3005(a) and 3010(b) that operators of hazardous waste disposal facilities must have a permit issued pursuant to the RCRA regulations within six months of their promulgation. §3005(e) was included to enable existing hazardous waste facilities to continue operating while their permit applications are being considered by EPA. The remaining §3004 requirements for TSDFs are not affected by the interim status provisions. If Congress had intended to exclude all interim status TSDFs (i.e., all existing TSDFs) from the §3004 requirements in their entirety, there would be no TSDFs to which §3004 regulations would apply on the effective date specified in §3010(b). Such an interpretation contrasts markedly with the urgency reflected in the requirement that §3004 regulations be promulgated 18 months after enactment of RCRA.

EPA's regulations should ensure compliance with all of the mandatory requirements by interim TSDFs within six months after final promulgation. This time frame is required by §3010(b) of the Act which establishes the effective date for all of the regulations promulgated under RCRA that are "applicable to the generation, transportation, treatment, storage or disposal of hazardous waste." Certification of adherence to these requirements by the six month period should be required as part of the permit application procedure.

In addition to the immediate benefits of applying the foregoing requirements to all active TSDFs, they will also provide a disincentive for substandard TSDFs to plan on continuing active operation until EPA acts on their permit applications, with no intention of actually bringing the facility into compliance with §3004 requirements.

C. Siting Requirements For Hazardous Waste Facilities

There is no laboratory or field experience showing that hazardous waste facilities meeting the §3004 requirements will not discharge waste for as long as that waste is biologically hazardous. EPA itself states:<sup>1/</sup>

Though the practice control standards [for TSDFs] are designed to provide maximum containment, the Agency recognizes that some discharge of the hazardous waste will occur.

In addition, there is always the possibility of spills, other accidents or human error. Apparently in recognition of such potential problems, EPA has included some general siting requirements in §250.43-1 of the §3004 regulations. However, these requirements are inadequate to protect health and the environment.

In addition to the siting requirements proposed by EPA, EDF suggests the following system. EPA should establish three categories of aquifers or aquifer segments: (1) priority aquifers (2) other underground drinking water sources (UDWS) and (3) non-underground drinking water sources. EPA or the states should, at the earliest possible time, classify all aquifers according to these categories. The various water resource and solid waste planning activities under

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<sup>1/</sup> §250.42-1 Background Document at 19.

SDWA, the Clean Water Act and RCRA should provide information for this task. No §3005 permits should be issued until this process is completed. If permits must be issued in the interim, EPA should require the permittee to compare the selected site with other sites in the region, classify the aquifer at the site, and demonstrate that the site is the best of those available.

The priority class should include, at a minimum, all aquifers which (1) meet the criteria for sole or principal sources contained in the proposed 40 C.F.R. §148 (42 Fed. Reg. 51620); (2) discharge into wetlands or high quality surface waters; (3) are high quality present or potential drinking water sources; (4) or are so designated by a §208 agency under the Clean Water Act or the §4002 planning process of RCRA. (Because of regulatory inertia and the irreversibility of groundwater contamination, all aquifers with less than 10,000 ppm total dissolved solids should be initially placed in the priority class. The burden of proof should be on the applicant or EPA to show that an aquifer does not belong in the priority class.)

No hazardous waste facilities should be allowed in the recharge zone of a priority aquifer. No exceptions to this blanket prohibition should be made unless the permit applicant can show that no alternative site exists within a multistate area.

The underground drinking water sources category should include aquifers, which, although they may be actual or potential drinking water sources, warrant less protection because of existing contamination or availability of other drinking water sources, and the absence of significant surface water effects. TSDFs over these aquifers would be permitted if they met the §3004 requirements.

The non-underground drinking water sources class should consist of aquifers which are saline, highly polluted or otherwise of severely limited value. There would be no reduction of §3004 requirements for TSDFs over these aquifers, but EPA and the State should identify these aquifers and encourage location of TSDFs over them.

EDF believes that adoption of the approach we have suggested will make the siting of TSDFs easier by increasing public confidence in the selected site. EDF also disagrees with the groundwater human health and environmental standard proposed in §3004. A rigorous groundwater human health and environmental standard (GWS) is necessary as a legal handle for compliance action in situations where disposal facilities meeting all the §3004 requirements nevertheless pose a threat to health and the environment. Currently, EPA's proposed GWS relies solely on the concept of endangerment based on existing Safe Drinking Water Act standards. Endangerment is completely inadequate to protect public health and the environment. The Safe Drinking Water Act aims only at protection of public health, while RCRA requires EPA to protect health as well as the environment. Further, the current Safe Drinking Water Act standards do not fully protect public health from chemical contamination of water. EPA itself has admitted the limitations of the current SDWA standards through its proposal of standards for the control of organic chemical contamination of drinking water.<sup>1/</sup> The proposed new SDWA standards are not applicable to hazardous waste sites, however, because they are geared to chemical byproducts of the chlorination process and a treatment technique useful only in water treatment facilities. To replace the currently proposed GWS, EDF suggests that EPA adopt, for all priority

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<sup>1/</sup> 43 Fed. Reg. 5755.



aquifers, a nondegradation standard. For non-priority aquifers, EDF suggests that the GWS prohibit, in addition to endangerment, any contamination of groundwater that would result in a violation of a water quality criterion promulgated under the Clean Water Act in the groundwater itself or in surface waters hydrologically connected to the groundwater.

**F. Note System**

In enacting RCRA, Congress gave EPA the authority to issue both mandatory standards and non-mandatory guidelines, and the procedure to be followed with respect to different sections of the Act was clearly spelled out. For §3004, Congress specifically provided that standards be established by regulations promulgated pursuant to the public rulemaking requirements of the Administrative Procedure Act ("APA"). Such regulations have the force of law and can only be changed by regulation. By contrast, the guidelines EPA is authorized to "publish" under §§1008(a), 3006(a) and 4002(a), are non-binding and nonenforceable.

The Note system proposed by EPA under §3004 would permit de facto amendments of the §3004 requirements without compliance with any of the procedural requirements of the APA. For this reason, EDF believes the Note system as proposed contravenes Congress' specific intent that §3004 requirements be established and modified only by regulation.

From a policy perspective, the Note system incorporated in §3004 grants far too much discretion to the permit writer. While EDF agrees with the agency's desire to provide some flexibility in the §3004 regulations in order to take advantage of site-specific conditions, the present Note approach to granting variances is far too

broad. Considering that RCRA contains no outright authority to grant variances from the hazardous waste regulations, the agency should be circumspect in permitting fully discretionary exceptions from the Act's requirements.

The absence of broad variance authority from RCRA is not accidental. Congress intended the Administrator to establish uniform federal standards for hazardous waste disposal,<sup>1/</sup> and the extensive granting of variances from such standards would seriously undercut achievement of this objective.

The present §3004 requirements should be divided into three classes, depending on the importance of the requirements and the difficulty of evaluating the kind of evidence that would support a variance. The first class would consist of requirements for which all existing Notes should be eliminated. The second class of requirements would be those for which variances, through the Note procedure, were permitted -- but only after EPA approval and after submission of specific kinds of data listed in the regulations. The final class of requirements would be those of lesser importance and which involve evaluation of less technical information, such as security, and contingency plans. Variances from these requirements could be left up to the local permit writer with general guidance from EPA. This class would essentially operate under the same procedure as proposed by EPA. We would suggest, though, that more detailed guidance documents be prepared by EPA.

#### G. Waste Specific Management Practices

EPA should attempt to characterize waste according to hazard and leachate potential and tailor TSDFs specifically to contain that

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<sup>1/</sup> House Report at 30. See also 122 Cong. Rec. S17255 and 123 Cong. Rec. S11069.

hazard. As currently written, the §3004 regulations are targeted at TSDFs planning to handle a variety of hazardous wastes. In such situations, the facility must be designed and operated to protect the environment from the worst of the wastes handled. EPA apparently intended the Note procedure to allow permit writers to modify §3004 requirements to allow waste-specific facilities. However, because of the problems with the Note system outlined earlier, EDF suggests that EPA expand instead on the special waste concept of §250.46. Accordingly, EPA should create a number of additional special waste site categories in the regulations themselves, and describe the §3004 requirements that would be applicable to them. No special waste should be exempt, however, from the requirements of §§3002 and 3003.

Designing waste-specific requirements appears to be easiest . . . for reactive, corrosive and ignitable wastes. For example, reactive wastes can be divided into a number of subcategories for which §3004 requirements could be specifically designed. The types of categories possible are suggested by EPA in the definition of reactive in §250.13(c). For example, EPA indicates that certain wastes are a hazard only when mixed with a nitrating source or when exposed to mild acidic or basic conditions. It would therefore seem possible to devise a TSDF which guaranteed that reactive wastes would not be subject to the conditions that rendered them hazardous, but which would not be required to meet all the other environmental safeguards proposed in §3004.

Regarding toxic hazardous waste, EDF firmly maintains that given the present state of scientific knowledge, it is impossible to classify non-threshold toxic chemicals on the basis of potency,

and that therefore §3004 standards cannot be written on the basis of this parameter. Inherent weaknesses in the statistical models used to extrapolate from high to low doses, and in our knowledge of the synergistic reactions between pollutants or the comparative sensitivities of animals and man preclude placing any confidence in quantitative risk assessment.

EDF suggests that EPA pursue, to the extent possible, the use of bioaccumulation, biostability and leachate potential, rather than potency of hazardous substances to create different categories of TSDFs. It is well known that chemicals posing chronic hazards can differ markedly in these regards.

In regard to all of EDF's suggestions for minimizing current §3004 requirements for certain hazardous wastes, EDF cannot emphasize enough that EPA must proceed only on the basis of rigorous and convincing scientific evidence. The burden should remain squarely on the waste generator or operator to prove that a reduction in required standards will not result in a violation of the no discharge objective of the §3004 regulations or of the air, surface or ground-water human and environmental health standards. EPA should not be pressured to create waste specific standards if sufficient data is unavailable just because the concept is a reasonable one. Moreover, attempts at producing waste-specific standards cannot be allowed to delay the RCRA implementation process. Congress, in setting the October 21, 1978 date, indicated its strong desire for speedy RCRA implementation. The December 31, 1979, promulgation date must be met with regulations based on the best information then available. Subsequent modifications to the regulations are then possible to incorporate any new data.

On the other hand, for chronic toxic hazards that are extremely biostable, or bioaccumulative, or have exceedingly high leaching potentials, the proposed §3004 standards are insufficient to protect the public health. For such chemicals, landfilling, land farming, or use of surface impoundments or basins should not be permitted. Such facilities do not sufficiently protect the environment from such wastes. EPA itself states:

However, though the practice control standards [for TSDFs] are designed to provide maximum containment, the Agency recognizes that some discharge of hazardous waste will occur. [§250.42-1 Background Document at 19]

Incineration or chemical or biological degradation of these wastes should be mandated. Only these techniques guarantee elimination of the threat posed by such wastes. EPA in its regulations governing the disposal of PCBs [40 C.F.R. §761] under the Toxic Substances Control Act recognized the need for mandatory high temperature incineration of certain hazardous wastes. Those regulations require that all PCB liquids, PCBs drained from transformers and large high and low voltage capacitors be incinerated. Other PCB-containing materials can be disposed of in chemical waste landfills.

#### V. RESOURCE CONSTRAINTS

When all is said and done and the final RCRA regulations are promulgated, the true test of fulfilling Congress' RCRA mandate will come during the implementation procedure. EPA's analysis and approval of state hazardous waste programs, permitting of treatment storage and disposal facilities, and enforcement of RCRA's regulations will ultimately determine whether or not the American public is protected from the dangers of hazardous waste. Unfortunately, given EPA's and the states' current resources, the safety of the American public is far from guaranteed. A recent General

Accounting Office report<sup>1/</sup> describes in shocking detail the inability of EPA and the states to effectively manage the hazardous waste program. GAO indicates that EPA may be forced to approve state programs no matter how faulty those programs may be. Similarly, state resource shortages may prohibit effective permitting and oversight. EPA staff indicates that current zero-based budgeting figures provide for the permitting of only 12 hazardous waste facilities per year.<sup>2/</sup> There are over 19,000 currently active hazardous waste facilities.<sup>3/</sup> EDF recognizes that consideration of alternative funding sources for administration of the hazardous waste program is one of the topics under consideration by this Subcommittee later in this Congressional session. Therefore, we will not go into detail, at the present time, on this issue. We did feel it necessary, however, to emphasize the need for increased resources if Congress' RCRA mandate is to be carried out in any effective fashion.

Thank you. I will be glad to answer any questions the Subcommittee might have.

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1/ Hazardous Waste Management Programs Will Not Be Effective: Greater Efforts Are Needed. U.S. General Accounting Office, CED-79-14, January 23, 1979.

2/ Thomas Jorling, U.S. EPA, personal communication, March 16, 1976.

3/ Preliminary Cost Assessment at 23.

Mr. FLORIO. Thank you very much.

It has been suggested that the concept of zero discharge often applied to active landfill sites now be applied to inactive and abandoned sites as well.

Would you care to elaborate on this concept?

Mr. DACH. We would agree with that. It seems clear from what we know about disposal technologies even today with the work that has been done over the last few years that there can be no guarantee that landfill will be a permanent disposal site. EPA's background documents and preambles admit this, saying, we don't know enough about liners, artificial or natural liners, to guarantee a final safe resting place.

Therefore, we can only assume that sites which were okay a few years ago without meeting any requirements, without any knowledge about the requirements, will be in the long term an even greater risk. We have seen that already in Love Canal and in the other anecdotal situations which have come to the fore. It just seems that inactive sites which have been taking wastes and letting them sit there for decades are not environmentally sound and need to be addressed as soon as possible.

Therefore, we have suggested the use of the permitting authority is the quickest way to get at that problem.

Mr. FLORIO. Of course, you heard the response of the representatives from EPA who were not as enthused about that approach to the problem. Do you have any thoughts as to the rationale behind their lack of enthusiasm to permit inactive sites?

Mr. DACH. I think you hit the appropriate chord when you asked about resources. I think EPA feels that its resources for permitting which we must agree with, are extremely small, and that therefore they feel that they may be unable to effectively enforce the act. Again, the response that we suggest is the use of some fund to come up with the administrative costs, and we would also emphasize again to EPA that there is a capability for voluntary compliance regardless of EPA's ability to actually get in there and oversee.

They can target their enforcement authorities in such a way as to provide a further incentive for people to comply, and even given their resources, just requiring permits and requiring that during interim status the permit requirements for ground water and air monitoring be met within a certain timeframe, a majority or at least a substantial proportion of the inactive sites can be made environmentally safer, even in the absence of actual EPA oversight.

Mr. FLORIO. I thank you very much for your very valuable testimony. If we could get the same degree of specificity from all of our witnesses, it would be very helpful to us in facilitating our business. Thank you again.

Mr. DACH. Thank you.

Mr. FLORIO. Our next witness is Ms. Pat Roach, chairperson of the National League of Cities' Steering Committee on Natural Resource Policy.

# STATEMENT OF PAT ROACH, CHAIRPERSON, NATIONAL LEAGUE OF CITIES' STEERING COMMITTEE ON NATURAL RESOURCES POLICY

Ms. ROACH. Good morning. My name is Pat Roach, from Dayton, Ohio, chairperson of the National League of Cities' Natural Resources Policy Committee. The National League of Cities represents over 15,000 municipal governments, both directly and through their membership in State and municipal leagues.

NLC welcomes this opportunity to testify on the hazardous waste management program. I have also included a statement on the nonhazardous waste provisions of the Resource Conservation and Recovery Act of 1976 for the committee record. There are two major issues that I want to discuss: one, the status of hazardous waste management programs under RCRA; and two, hazardous waste problems outside the scope of RCRA.

## STATUS OF HAZARDOUS WASTE MANAGEMENT PROGRAM UNDER RCRA

The Resource Conservation and Recovery Act mandates the establishment of a regulatory program to manage hazardous waste from the point of generation to the point of disposal, including the regulation of generators and transporters and the permitting of treatment, storage, and disposal facilities. The act also requires the development of strong State hazardous waste management programs consistent with the Federal regulatory standards. According to EPA estimates, some 40 States will apply for interim or full authorization to administer a hazardous waste management program. The administration has distributed \$15 million in grants in fiscal year 1979 and requested \$18.6 million in fiscal year 1980 to assist States in this effort.

EPA's current estimate for the final promulgation of the RCRA hazardous waste regulatory program is January 1980, which means the program will not be put into effect until June 1980, at the earliest, 2 years later than the statutory deadline of April 1978.

In the meantime, many States are attempting to deal with present hazardous waste problems to the extent that Federal and State resources and State laws allow. The result is that industrial hazardous waste generators are carrying their wastes or are moving their operations to those States with weaker hazardous waste management laws, making it virtually impossible to control the national hazardous waste problem until the Federal regulatory program is on track.

EPA can assist the states by taking action of its own to help prevent future Love Canals. Section 7003 of RCRA authorizes EPA to seek injunctive relief to stop improper waste handling where it presents an imminent and substantial endangerment to health and the environment. Until the State programs are in place and operating, EPA should use the section 7003 enforcement powers to control the spread of improper hazardous waste handling and disposal practices.

## HAZARDOUS WASTE PROBLEMS OUTSIDE THE SCOPE OF RCRA

The present RCRA law is written to track the hazardous waste cycle from cradle to grave, including the safe disposal of newly



generated wastes. The law, however, does not provide any protection for personal injury or property damage due to abandoned sites or facilities closed before the RCRA program takes effect. The incidents at Love Canal in Niagara Falls revealed that the Nation is unprepared and at best ill equipped to deal with the problems resulting from an accident of this type.

NLC has not developed a formal policy on hazardous waste management, but the Natural Resources Policy Committee has established this area as a priority issue for its work during this year. The following issues will be examined by the Natural Resources Committee, and I raise them today in order to present some of the concerns of local governments for this committee's consideration.

Abandoned sites pose an immediate threat to public health and safety. A recent contractor study estimated that the total number of hazardous waste sites may range between 32,254 and 60,665, and the number of significant problem sites may range between 1,204 and 2,027. City officials should be aware of these sites in order to prepare appropriate response measures. EPA has encouraged the States to use a portion of their fiscal year 1979 hazardous waste grant funds to conduct an inventory to identify abandoned sites. NLC urges Congress to make this inventory a mandatory requirement in the reauthorization of RCRA or in the subsequent hazardous waste amendments. A complete inventory of these sites performed as soon as possible would provide heightened awareness at the local level and a measure of public protection.

Reclamation of abandoned facilities could commence in an orderly fashion once the sites are located and the levels of potential public danger determined. The costs associated with the reclamation of abandoned sites will be high. A preliminary EPA study estimates that the complete cleanup of the significant problem sites could range between \$26 and \$44 billion, excluding third-party costs. In the case of Love Canal, the local governments provided the initial assistance to the affected residents, but what level of local government assistance can be expected when the burden of responsibility may rest elsewhere?

Municipal liability for hazardous wastes deposited in abandoned municipal landfills is another major concern. An inventory of abandoned sites will identify these potential problem areas, but municipalities should not be liable in cases of hazardous waste accidents unless municipal negligence can be established. Situations like these argue for consideration of a national contingency fund assisted to some extent by State programs.

Emergency contingency funds do not presently exist to assist individuals for health or property damage. Local governments can also incur costs from devaluation of tax property or damage to public facilities such as the Louisville accident, where the city had to pay the costs of cleanup after a hazardous waste spill. Although NLC policy does not specify an approach to hazardous waste emergency assistance, the consideration of a national superfund concept would appear at this time to be the most reasonable approach to this problem. It is also reasonable to expect that the sector of the economy benefitting directly from the manufacture of hazardous waste should contribute a major portion of the revenues to a national fund.

There are three major issues that I want to discuss on the reauthorization of the nonhazardous waste provisions of the Resource Conservation and Recovery Act of 1976: First, implementation of the State solid waste plans and local responsibilities; second, resource conservation and recovery; and third, EPA's technical assistance program.

#### IMPLEMENTATION OF STATE SOLID WASTE PLANS AND LOCAL RESPONSIBILITIES

Most States have now finalized a solid waste plan or are nearing completion of their plan. The administration's budget request of \$10 million for fiscal year 1980 reflects a winding down of Federal support for those solid waste activities required under subtitle D. It is the administration's intention to fund State planning for EPA's highest priority activities, such as the open dump inventory and the development of a range of State regulatory activities.

Aside from planning, funding for grants to States or local governments for implementation of these plans has not been requested by the administration or appropriated by Congress. Also, it is our understanding that the administration does not intend to request any funding for this purpose in fiscal year 1981. Local governments have received little Federal funding assistance to meet requirements prohibiting the establishment of new open dumps or the upgrading or closing of existing dumps. EPA will soon publish final regulations for the monitoring and siting of new sanitary landfills.

In the past NLC has supported the goals of this act, including the establishment of criteria for new sanitary landfills, but NLC has always assumed that the Congress would commit Federal resources to assist local governments in meeting some of these requirements. The growing budgetary pressures to reduce spending come at a time when States and local governments are moving toward implementation of these plans. Mandated costs are a growing concern among local officials and undermine support for a national program when financial assistance is not provided.

EPA officials take the position that funding for this implementation phase should come from State and local resources, including user fees. NLC supports some type of local funding mechanism to carry out these local responsibilities, but it is necessary for Federal resources to assist in a transition to local funding. Municipal officials will have a very difficult time generating community support for a federally mandated program requiring initial fees or taxes from their residents when no Federal assistance is available. User fees probably will be the most common locally adopted funding source, but there will be an interim period, when the program is starting up and when no fees are coming in, that requires Federal or State assistance. You cannot move directly from a State plan to a local user fee or other similar funding mechanisms in one step.

When RCRA was enacted in 1976, the Congress recognized this problem and authorized for both fiscal years 1978 and 1979 \$15 million for State and local implementation; \$2.5 million for special communities; and \$25 million for rural communities. To date, no funding has been requested by the administration or appropriated by Congress. NLC urges the committee to reauthorize these sections of the act which provide for local implementation assistance.

## RESOURCE CONSERVATION AND RECOVERY

As acceptable sites for urban waste disposal are more difficult to locate and as rising transportation costs diminish the practicality of long-distance hauling of solid waste, the potential of resource conservation and recovery programs grows daily.

The administration recognized this potential in its national urban policy, which requested \$15 million for fiscal year 1979 for resource recovery project development. In the first round of grants, 68 cities received funds to assist them in planning for the construction of resource recovery program or the development of a source separation program.

The administration has continued this commitment to resource recovery with a fiscal year 1980 budget request of \$13.9 million for resource recovery. NLC strongly supports this commitment to resource conservation and recovery. However, there are a number of issues that should be addressed during this reauthorization:

There appears to be a bias toward high technology approaches to resource recovery. While NLC supports high technology approaches where appropriate, it also supports appropriate medium and low technology methods for conserving resources. The major problem with high technology plants is that they tend not to be cost effective, and in some cases it can be argued that the value of the materials consumed may be greater than the value of the energy produced from burning them. In addition, many plants must maintain a high flow of solid waste stream in order to make the plant cost effective. This process undermines efforts to reduce the solid waste stream through community and industry conservation efforts.

Source separation programs are an important step in any effort to reduce the solid waste stream. NLC urges the committee to explore the creation of a national market for recycled materials, including a stabilization of prices for these materials through a subsidy program, including subsidized rail rates. The Federal procurement effort could greatly assist the shift away from virgin materials and toward secondary materials.

EPA's efforts should move more aggressively toward funding and assisting in source separation programs at the municipal and neighborhood levels.

The Congress must take steps to insure that the litter stream is reduced at the source. The National League of Cities' National Municipal Policy supports the enactment of a national mandatory deposit system for beverage containers. The Federal Interagency Resource Conservation Committee will soon release its report recommending some type of Federal action in this area.

## EPA'S TECHNICAL ASSISTANCE PROGRAM

A strong technical assistance program managed and funded by the Environmental Protection Agency is an important element of a successful national solid waste management program. EPA should be commended for its efforts in working to fill this real need for technical assistance at the local level.

Many city officials have worked with the resource conservation and recovery panel programs, and they have found them to be an

effective vehicle for addressing their concerns. An effective technical assistance effort will be increasingly important to the RCRA program if the funding for State and local efforts is not increased or maintained.

#### CONCLUSION

In conclusion, let me again stress the importance of local government cooperation and support to the successful implementation of RCRA. Two prerequisites to such support are technical and financial assistance, with active consultation between Federal, State, and local officials.

Achieving RCRA's objectives will not be an easy task. NLC looks forward to working with this committee to present the views of cities and municipalities.

Thank you.

Mr. FLORIO. Thank you very much. I would be interested in any specific information or evidence you might have with regard to your observation that industrial hazardous waste generators are carrying their waste, or are moving their operations to those States with weak regulatory systems.

Ms. ROACH. Let me give you an example of my own State, the second highest State in the country with environmental waste. Ninety-eight percent of that waste is going out of our State.

Mr. FLORIO. Has that changed, or is that percentage in a constant proportion? The implication in this situation seems that because a State puts in a good system, someone diverts their wastes, which might have otherwise been disposed of previously in that State, to another State.

Ms. ROACH. I think that will increase. We are in the process now of surveying in our State to find out actually what particular areas are there. If in fact our State enacts more stringent legislation and it does not happen at the Federal level, that will be easier for them to go to adjacent States where they do not have State legislation in effect.

Mr. FLORIO. In regard to EPA's public education programs, I am wondering if you have had any experience with the programs, and if you think they are doing any good in easing public opposition to the whole area of siting.

Ms. ROACH. I can't speak specifically about industrial wastes with regard to the public education program. I can speak from first-hand knowledge with regard to air quality and the public programs which have gone on in my particular area.

I chair the Regional Air Quality Committee. The public programs which have gone on there and the citizens' participation has been practically nonexistent. We are more than concerned about the ability for local citizens who have to come after me as their local elected official to put the blame on the ability to convince them of the seriousness of the problem. I am alarmed at what will happen when people in my area learn that Ohio is the second largest State for industrial wastes, and then come to me and say, whose yard is it in?

Mr. FLORIO. You have made reference to inventorying abandoned sites. Isn't the local level probably the most effective level to conduct that inventorying?

Ms. ROACH. It may be, but we need the technical assistance and the staff to do that. We cannot do that without additional help in that arena. If the reports are correct which say that States can't handle it, that the regional offices can't handle it, there is no way a local level can handle it without additional help.

Mr. FLORIO. We are talking about grades of expertise. The process of merely inventorying abandoned sites, it seems to me, doesn't take a great deal of expertise. The next level of ascertaining whether or not there is anything there of some concern would take a higher degree of expertise, but it would seem to me that the local people should know what sites did or may still exist. Is that observation correct?

Ms. ROACH. I haven't the faintest idea of what is in my area, and I don't know anyone who does.

Mr. FLORIO. Thank you very much for your testimony.

Ms. ROACH. Thank you.

Mr. FLORIO. Our next witness is Mr. Frank Kaler of Jamesburg, N.J.

Mr. Kaler, we welcome you to the committee. We appreciate your waiting, as we have gone through this long list of witnesses, and we look forward to your testimony.

#### **STATEMENT OF FRANK KALER, SOUTH BRUNSWICK TOWNSHIP, MIDDLESEX COUNTY, N.J.**

Mr. KALER. I would like to express my appreciation to the committee for affording me the opportunity to testify here today. My name is Frank Kaler. I live in South Brunswick township in Middlesex County, N.J. My approach and my address will be somewhat different from the sort of things you have been hearing today, because I unfortunately am one of the what I believe will be the ever-increasing number of victims of this sort of situation we are discussing today. I have been invited here today to tell you of the problems I had in a case involving the pollution of the aquifer from which I and thousands of other citizens of central New Jersey draw their water.

My private well became polluted as a result of uncontained leachate from an adjacent landfill which was licensed by the State of New Jersey and regulated by the New Jersey Department of Environmental Protection. Upon first discovering the contamination, I followed the chain of command from the municipal and county level to the State and finally to the EPA. The course was a rocky one, replete with bureaucratic obstruction, reluctance to act, inefficiency, and incompetence.

The township, county, and State all told me there was nothing wrong with my water, but I provided samples which are available in the back of the room. I am sure that simple observation of those will convince you that I was completely correct in doubting either the competence or sincerity of the officials involved.

The specifics of my difficulties in prompting any sort of positive action could easily consume the entire day, so I will have to confine myself to a few of the most blatantly frustrating incidents, with only a reminder that for each incident mentioned here there were dozens of others of a similar nature.

When I first discussed my water problem with the DEP's chief of the bureau of potable water, his reply was, you know, Mr. Kaler, you keep this sort of thing up, the first thing that is going to happen, they are going to condemn your well. The State tested my water in the summer of 1975 and declared it potable. Later analyzed by the EPA, it showed the presence of chloroform, toluene, xylene, trichloroethylene, trichloroethane, benzene, dichloroethylene, and other organic contaminants, sometimes in shockingly high concentrations.

In spite of the wide dissemination of a private laboratory's report, which showed five wells in the area to be dangerously polluted, all testing stopped until I petitioned the township and shotgunned copies of that petition to Governor Byrne and many other legislators. When I asked the top county health official why they were not out testing in ever-widening circles to determine the absolute extent of the contamination, his reply was: "Oh, come on, Frank, you know as well as I do if we tested all of those wells out there, they would all come up bad." Samples which my neighbor, Ted Kordus, and I collected from the landfill and photographs which I had taken of landfill scenes were lost by the DEP personnel at whose request I had delivered them to Trenton. Telephone reports of illegal deposits in the landfill which I made to the DEP very often appeared to trigger frantic coverup activity on the part of the landfill operators.

Mr. FLORIO. Just in terms of timeframe, when was this all taking place?

Mr. KALER. Beginning in the spring of 1975 and continuing through the trial date of June 6, 1976. A DEP official, upon being chided by me for not going into the landfill to sample a load of waste from BASF Wyandotte, gave as his reason for inactivity: "We have our jobs to worry about."

A mayor of our township told me that the reason he did not want to issue summons to the landfill for violations of local codes was that he was afraid the landfill would sue the township for harassment.

After having failed to obtain a satisfactory answer through test results or ameliorative action up through the DEP, we managed to finally get the EPA division II laboratory to analyze a sample. The difficulty in reaching EPA had nothing to do with EPA. The block was the DEP.

On October 3, 1975, I picked up the first of many tests made of my well by EPA. That analysis showed the presence of five of the organic compounds mentioned earlier.

Without the help, cooperation, and understanding of the people of the Edison Labs, I would have in all likelihood had to have abandoned my home.

The EPA's assistance, however, was limited to testing and advisory matters. It did not appear to me that this organization had any real capacity or authority to enforce or correct.

As is the case with the township, county, and State, the EPA, ostensibly designed to regulate, depends finally on the courts, and one judge making one wrong decision will either tragically delay correction or totally prevent correction.

Our regulatory agencies thus become powerless to be effective in doing the job for which they were created.

With confirmation that my well was indeed polluted, and we thought adequate proof of the contaminants' source, we acquired an attorney who immediately sued anyone who had ever come near the landfill, including such industrial giants as Textron, Inc., General Motors, General Electric, BASF Wyandotte, Ortho Pharmaceutical, Shell Chemicals, Cities Service, and others.

There followed a period of time during which we were bombarded with interrogatory booklets, obviously designed to try to make us appear to be cretinous types who dirtied up our own nest and polluted the landfill. We were asked to answer questions such as: "How many loads of clothing does Mrs. Kaler wash in a day," or, "State the circumstances under which Mr. and Mrs. Kaler were married," or "How do you slaughter your animals," and on and on, seemingly, at that time, *ad infinitum*.

The next step was deposition, and again interminable, irrelevant, picayune questions, educational background, income, personal habits, vegetable gardening procedures, the exact distance from my well to my septic, for almost 2 whole days. Then, finally, our day in court arrived, and after 4 days of trial, our attorney informed us that even if the court found in our favor, there was not likely to be more than a \$10,000 settlement, and that if the court should find in our favor, the landfill and Patterson Sargent, which was the only remaining defendant along with the landfill, the others having been released in summary judgment prior to trial date, the landfill and Patterson Sargent would appeal and appeal and appeal.

I asked what opposing the first appeal would cost us, and our attorney said \$5,000 to \$8,000, and finally, facing up to reality, he verbally agreed to settle for \$10,000, but only after offering to settle for \$1,000 if the court would close the landfill.

Mr. FLORIO. Is the landfill still open?

Mr. KALER. It is still open and operating, and it is now over 3 years since the department of environmental protection ordered it closed. We were in fact economically bludgeoned out of that courtroom. Judge David Furman was quoted in a local newspaper as saying he would not close the landfill as requested to by the DEP because, "The man had a considerable investment in equipment." He did not consider the considerable investment a parent has in four children, or the considerable investment my coplaintiff, Ted Kordus had in his company.

He said another reason he would not close the landfill was that we and the State had not proved that the landfill had irreparably damaged the aquifer. He did not deny that the landfill had damaged the aquifer. In fact, he implicitly agreed that it did, so what he really said was that the landfill had poisoned my well and maybe my children, but perhaps in 1,000 years or so the pollution might dissipate to the point where it would be undetectable, so no harm was done.

With litigation at an end, we returned home to our newly installed municipal waterline complete with chlorine, water bills, and an assessment. This assessment was small to me as I have short frontage, but Mr. Kordus' bill for his nursery and home amounted to almost \$10,000. Mr. Kordus used to irrigate profusely.

EPA testing showed his wells to be contaminated. He is fearful of watering young and delicate clones with trichloroethane and whatever other contaminants may have migrated to his well by now, but he has a choice. He could use municipal water, the line passes his property, and hazard damage from chlorine, or bankruptcy from water bills in one dry season.

Or, for that matter, he could ultimately lose his property to the township for cumulative interest charges on the farmland deferred assessment for the waterline. His interest charges for this year alone amounted to almost \$1,000.

In looking back at the whole picture, one finds that industry through the landfill, by and with at least tacit and often, it appeared, with the explicit permission of Government, polluted my well, and under the present system, which is heavily loaded in favor of industrial interests as opposed to private citizens individually or in groups, I was almost totally legally impotent.

I am forced to the conclusion that there was no equity in our courtroom because I did not have enough money to pay for it, and under the present system, equity is a high-priced commodity.

Looking back, in another direction, I see our institutional structure, where it was not simply and honestly incompetent, inefficient, and uncaring, desperately eager to protect tax rates, frantically appeasing industry lest these industries be scared off to less ecologically harsh climates. I have to consider the possibility that our Government is operating under the premise that clean air and clean water will be useless to the public if they do not have jobs, but I should like to remind them that jobs will be useless to the public if their air and their water is allowed to die.

This is the way things are. I believe they will remain essentially the same, as long as the private citizen cannot enter a courtroom on an equal footing with any corporate giant. I would like to add as a result of having listened to testimony this morning that what I have unwittingly implied here is a superfund, and I am delighted to hear that there is some activity in that direction.

Also, I was cautioned about time limitations. I do have an expanded paper which will be available. We had rather short notice, and since there were heroes involved, I would like to take a few more moments to commend those whom I ran across who were absolutely fantastic, and I would like to commend Mr. Francis T. Brezenski, Laboratory Director, Division II, USEPA, Edison; Dr. Theodore P. Shelton, Rutgers University Department of Environmental Science; Mr. William Althoof of the DEP in Trenton; Ann Kruger, the environmental commissioner of South Brunswick, N.J., an unpaid public volunteer who has done a tremendous job; and finally, Mr. Jack Van Dalen, Deputy Attorney General, who handled the case against the landfill, and I believe still is.

I would be happy to answer any questions.

[Mr. Kaler's prepared statement follows:]

STATEMENT OF FRANK KALER, SOUTH BRUNSWICK TOWNSHIP, MIDDLESEX COUNTY, N.J.

I have been invited here today to tell you of the problems I have had in case involving the massive pollution of an aquifer from which I drew my water.

My private well became polluted as a result of uncontained leachate from an adjacent landfill which was licensed by the State of New Jersey, and regulated by the New Jersey Department of Environmental Protection. This was, from the very



beginning, my own personal opinion, and later, the opinion of at least the Attorney General's staff assigned to the case.

Upon first discovering the contamination, I followed the chain of command from the municipal and county level to the State, and finally to the Federal EPA. The course was a rocky one, replete with bureaucratic obstruction, reluctance to act, inefficiency and incompetence.

The Township, County and State all told me that there was nothing wrong with my water, but one sniff of the samples which I have made available to you will convince you that I was justified in my complete lack of confidence in officialdom's competence or sincerity.

The specifics of my difficulty in eliciting any sort of positive action could easily consume the entire day, so I shall have to confine myself to a few of the most blatantly frustrating incidents with only a reminder that for each incident recorded here there were dozens of others of a similar nature.

Upon my first recounting my problem to the DEP Chief of the Bureau of Potable water, this gentleman replied, "Y'know Mr. Kaler, you keep this sorta thing up, first thing's gunna happen, they're gunna condemn your well."

The results of a state test of my well water in the summer of 1975, "Potable." This same page reported a cold odor of 4, grease and oil 4, and a C.O.D. of 12. This same well water later analyzed by the EPA showed the presence of chloroform, toluene, xylene, trichloroethane, trichloroethylene, benzene and dichloroethylene!

In spite of very positive indications that many more wells might be polluted testing stopped until I petitioned the Township and shotgunned copies of the petition to Governor Byrne and many other legislators.

Test results were not being released to the public and even more damnable to those persons consuming contaminated water.

Samples which a neighbor and I collected from the landfill, and photographs I had taken of landfill scenes were "lost" by DEP personnel at whose request I had delivered them.

Reports of illegal deposits which I made to the DEP very often elicit frantic cover-up activity on the part of the landfill operators.

A DEP official upon being chided by me for not going into the landfill to sample a load of waste from BASF Wyandotte, gave as his reason for inactivity, "we have our jobs to worry about."

My Township issued a summons calling for me to defend a charge of "failing to abate the nuisance of having a bad well."

A mayor of our Township told me that the reason he did not want to issue summons to the landfill for violations of local codes was that he was afraid the landfill would sue the Township for harassment.

The EPA at first refused to perform their highly sophisticated tests, saying that private wells were out of their jurisdiction. What amounted to a letter writing campaign by Dr. Ted Shelton of the Department of Environmental Science at Rutgers University finally succeeded in getting the DEP to make the necessary formal request needed for the EPA to help, and on October 3, 1975 I picked up a copy of the first test which showed the presence of chloroform, toluene, xylene, trichloroethane and trichloroethylene. Without this help from the EPA we were at what seemed to be a total dead end, and I know that without this help and the cooperation and understanding of the people of the Edison labs, I should in all likelihood have had to abandon my home.

However, the EPA's help was limited to testing and advisory matters. It did not appear that this organization had any real capacity or authority to enforce or ameliorate.

With confirmation that my well was indeed polluted, and (we thought) adequate proof of the contaminant's source, we acquired an attorney who immediately sued anyone who had ever come near the landfill. Industrial giants like Textron, Inc., General Motors, General Electric BASF Wyandotte, Ortho Pharmaceutical, Shell chemical, Cities Service and other.

There followed a period of time during which we were bombarded with interrogatory booklets which were obviously designed to try to make us appear to be cretinish types who dirtied up our own nest and polluted the landfill. We were asked to answer question such as: "How many loads of clothing does Mrs. Kaler wash in one day?" or to "State the circumstances under which Mr. and Mrs. Kaler were Married or "how do you slaughter your animals?" and on and on, seemingly, at the time, ad infinitum.

The next step was deposition, and again interminable irrelevant, picayune questions, educational background, income, personal habits, vegetable gardening procedures, the exact distance from my well to my septic, from 9 am Thursday to about 6:30, and on Friday from 8 am to about 2:30.

Then finally our day in court arrived and I made the opening statement because our attorney had quit the case 3 weeks earlier, citing irreconcilable differences between his clients and himself. (We were not allowed to speak against his case.) The differences were that we refused to settle out of court, and also refused to allow our \$360 per day expert witness to appear throughout the whole trial (est. 20 days) but felt we could only afford to have him present his report and be examined on it.

The new attorney we hired (at \$500.00 per day) informed us that it was very unlikely that the court would find in our favor, and that even if it did there was not likely to be more than a \$10,000.00 settlement, and that if the court should find in our favor the landfill and Patterson Sargent (the only remaining defendant with the landfill) would "appeal and appeal and appeal".

I asked what opposing he first appeal would cost us and he said \$5-8,000 and finally facing up to reality, we verbally agreed to settle for \$10,000, but only after offering to settle for \$1 if the court would close the landfill.

We were economically bludgeoned out of the courtroom!

Judge David Furman was quoted in a local newspaper as saying that he would not close the landfill as requested to by the DEP because "the man had a considerable investment in equipment." He did not consider the considerable investment a parent has in four children. He also said that another reason that he would not close the landfill was that we and the state had not "proved that the landfill had irreparably damaged the aquifer." He did not deny that the landfill had damaged the aquifer, in fact he implicitly agreed that it did, so what he really said was that the landfill had poisoned my well and perhaps my children, but perhaps in a thousand years or so the pollution might dissipate to the point where it would be undetectable, so no harm was done!

South Brunswick installed a water line which deadends on my front lawn. It passes Mr. Kordus' property, and we were duly assessed for our share of the Improvement. Mr. Kordus is a nurseryman who used to irrigate profusely. EPA tests show that his wells are contaminated. Mr. Kordus is fearful of watering young and delicate clones with trichloroethane, but he now has a choice, he could use municipal water and hazard damage from chlorine or bankruptcy from water bills in one dry season, or for that matter ultimately lose his property to the Township for cumulative interest charges on the farmland deferred assessment for the water line.

Those industries which we so audaciously filed suit against have still another monetary advantage. They can write off their legal, investigatory and expert witness costs. We cannot, even though we were fighting to save our homes from condemnation.

This is how things are. In my opinion they will remain essentially the same as long as the average private citizen cannot enter a court room on an equal footing with any corporate giant.

Mr. FLORIO. Thank you very much. We certainly appreciate your coming to Washington and providing us with this testimony. Although I am not specifically and intimately involved in your situation, we have a situation comparable to yours in south Jersey when two landfill operations which were determined to be polluting local water systems. My recollection was, that the phenol content in local wells was 10 times what is supposed to be appropriate for human consumption.

It seems that in that situation, DEP ordered the landfill operation to construct monitoring wells in the periphery of the landfill operation so whatever was working its way into local water supply systems could be measured. Were there any monitoring wells ordered by DEP to be constructed in your situation?

Mr. KALER. Yes, sir, they were ordered. The installation of the monitoring wells was delayed interminably. Finally, they went in, but monitoring wells are really a very foolish way of doing things, because by the very nature of a monitoring well, we rely on them for protecting an area and by their very nature they are incapable of doing so, because necessarily by the time contamination reaches a monitoring well, the aquifer is already polluted, and to instigate irrigating or pumping out procedures in a large landfill, the courts

and even general opinion seems to be that it is just impossibly expensive.

Mr. FLORIO. Perhaps it is largely as a result of your efforts, but my understanding is that the State of New Jersey now has a policy whereby no landfill operation in the State is currently eligible to receive industrial or hazardous wastes. The problem you made reference to, which I am sure was in existence at the time you initiated your action, has been remedied, at least to the extent that there are prospectively no landfill operations except for the disposal of hazardous waste. Is that your understanding as well?

Mr. KALER. I would really like to know where the hazardous waste is going. It is not just piling up mountain high. Someone is getting rid of it somewhere, and of course that is certainly a problem.

Mr. FLORIO. That problem refers to the entire issue of illegal dumping. However, what I am suggesting is that at the time when your problem began to appreciate, it was perfectly legal to be dumping these materials into landfill operations around the State. It is now illegal.

Mr. KALER. I will have to disagree with that to some extent, because in 1975 I exerted great effort trying to determine from the Department of Environmental Protection precisely what types of contaminants the JIS landfill was allowed to accept. The DEP Chief of the Bureau of Solid Waste told me that Mr. Jones was allowed to accept up to radioactives and I can show you a piece of paper signed by that same man on which the JIS landfill is specifically excluded from accepting almost every type of hazardous waste.

The JIS landfill, as all landfills in New Jersey, is subjected to periodic and supposedly thorough inspections, at least on a 30-day basis. I cannot show you the inspection reports, but I have seen them, signed, classified Simon Pure during times when I can also provide documentary photographic proof of violation upon violation upon violation.

Although the JIS landfill was supposedly not allowed to accept hazardous wastes, they were on the other hand accepting hazardous wastes with perhaps another section of the DEP's approval, and even in some cases laudatory letters sent by Trenton claiming that a recharge area was an ideal place, a sandy recharge area was an ideal spot for the disposal of chemical wastes.

Mr. FLORIO. How long ago was that?

Mr. KALER. The letter? Back in 1967.

Mr. FLORIO. As recently as 2 weeks ago, we had a situation where Philadelphia had some interest in disposing of alleged hazardous wastes, contaminated fill, in a south Jersey landfill. As a result of my inquiry, I was assured by DEP that there is no site in the State of New Jersey which is now authorized to accept any hazardous material, and I will again verify that.

Mr. KALER. Fine, I don't believe that the JIS landfill today is authorized to accept hazardous material, but I will quote a DEP employee just a week and a half ago who said: "But who is there to watch it?" Again, it is a problem of regulation. The problem is not that we don't have the laws. The problem is that we cannot enforce them, and when we apprehend a landfill operator operating illegal-

ly in our case there is over a 3-year timespan, and OK, he is not dumping chemicals any more. Let's assume he is obeying that edict, but there are tons and tons of materials under the ground, a great amount of it in steel drums, which will deteriorate slowly and release their contaminants into the aquifer.

No attempt at all has been made to clean the aquifer. To my unlettered observation, the water is worse now than it was when we first stopped using it, as a matter of fact, much worse, the same in many ways, but much worse. The situation has not improved, and nothing is being done to improve it.

The migration of this aquifer is from the landfill across the township line into Monroe Township. I have been to Monroe Township, to township committee meetings, and warned them of what was happening, and they just don't seem to care.

Mr. FLORIO. Let me suggest that what the Congress is attempting, is to make certain that existing and proposed regulations are implemented in order to avoid a recurrence of the problem you have described.

The other point that you very legitimately raise, is how do you undo whatever it is that has already been done. As you observed and heard during the course of testimony today, reference has been made by a number of witnesses to the need for a trust fund to provide the revenues for cleaning up. That there is some difference of opinion as to how it should be funded is, as far as I am concerned, one of the major priority issues of this Congress. There is some difference of opinion, however, as to who should have jurisdiction over this issue, but I can conclude by assuring you that this committee considers this one of its primary issues throughout the course of this coming year.

Thank you for your willingness to provide the committee with your suggestions, thoughts, and benefits of your experience.

You mentioned something about having a more extensive statement. If you would be so inclined to submit it to this committee, I would be happy to make that a part of the record as well.

Mr. KALER. We certainly will, and anything I can do in the future to help, I feel somehow obligated to continue fighting the problem.

Mr. FLORIO. Thank you very much.

Mr. FLORIO. Our next and last group of witnesses is a panel of two individuals, Mr. Richard Wiechmann, the director of Environmental Affairs of the American Paper Institute, and Mr. Charles Malloy, chairman of the subcommittee for the American Society for Testing Materials.

Gentlemen, we welcome you. Your statements will be made a part of the record, and we ask you to identify yourselves for the record and to proceed as you see fit.

**STATEMENTS OF RICHARD WIECHMANN, ON BEHALF OF THE AMERICAN PAPER INSTITUTE AND THE NATIONAL FOREST PRODUCTS ASSOCIATION, AND B. CHARLES MALLOY, CHAIRMAN, SUBCOMMITTEE D-19.12 OF AMERICAN SOCIETY FOR TESTING MATERIALS**

Mr. WIECHMANN. Mr. Chairman, I am Richard Wiechmann, director of Solid Waste Programs for the Forest Industries' Resource

and Environment Program, a joint program of the American Paper Institute and the National Forest Products Association.

API, the American Paper Institute's 200-member companies produce 90 percent of all the pulp paper and paperboard manufactured in the United States, and similarly the 2,500 forest products companies represented by NRPA produce a major portion of the Nation's solid wood products such as lumber and plywood. As by-products of their manufacturing processes and their pollution control and treatment processes, the member companies of both associations generate substantial volumes of solid wastes, subject to the various requirements of RCRA.

In reading the proposed regulations published in the Federal Register on December 18, we are concerned at the broadness of the agency's approach to defining hazardous wastes and its imposition of the same treatment and storage requirements for all hazardous wastes, regardless of its degree of hazard.

The agency's simplistic method of defining hazardous wastes would result in diverting scarce enforcement resources and scarce disposal facilities to wastes which do not present a real hazard to health or the environment.

Let me elaborate. At the time that RCRA became law, both the paper and paperboard and solid wood industries did not view themselves as major generators of hazardous waste. It was, of course, recognized that there were a few special situations where the waste generated might be defined as hazardous. However, in light of the December 18 proposal as well as the hazardous waste advanced notice of proposed rulemaking also published on December 18, we are deeply concerned at the extreme breadth of the agency's definition of what is hazardous.

The eventual regulations may classify many of our facilities as hazardous waste generators, which they are not, simply because the criteria developed at the agency are not adequate determinants of likely hazards to human health or the environment.

This is the key weakness in the agency's whole approach to hazardous waste control. Rather than classifying the potential hazards in particular situations, EPA has simply established a pass-fail determination which does not recognize the various degrees of hazard potential of a waste or the varying circumstances of its containment.

What is more, the agency's proposal creates the curious result of exempting generators of small quantities of extremely hazardous wastes from the rigorous control standards required, while at the same time requiring generators of large quantities of waste having a much lesser degree of hazard to comply with those rigorous standards. For example, a contractor's study of a paper industry undertaken for EPA examines bark wastes. This study under the maximum control option finds, I quote: "Bark wastes are therefore concluded to be hazardous under RCRA." This is hard to comprehend, inasmuch as many householders use bark as a mulch and weed control around their foundation plantings.

The goals of RCRA are not best served by this approach. Congress envisioned some recognition of the varying degrees of hazard of solid waste. In our comments, we have recommended that the agency substitute for their oversimplified pass-fail approach for

determining a hazardous waste a classification system creating three or more different classes or categories of hazardous waste.

In informal discussions with the agency over the past months, however, we have been led to understand that the agency rejects this approach, because it would be difficult to implement. We believe nevertheless that this was Congress intent, and that in fact the act, requires a classification system. RCRA's definition of "hazardous waste" provides for at least two classes of hazardous waste, one consisting of those wastes which even in small quantities are a constant hazard in and of themselves; and the other consisting of those wastes which may become a hazard, in other words, those which may impose a hazard when improperly treated or stored.

Our proposed class I is the same as the first category, and our proposed classes II and III are refinements of the second broad category.

Under the December 18 proposed regulations, EPA has recommended a blanket 100 kilogram a month exclusion for all hazardous wastes. We feel that this is unacceptable. Small quantities of extremely hazardous waste would avoid any regulations, while large quantities of wastes of a much lesser degree of hazard must meet the entire panoply of standards.

A final word on this classification system. Hazardous waste disposal sites are already in short supply. In order to prevent these scarce sites from being inundated with wastes which have only a slight degree of hazard, we believe that Congress should prepare legislative language to direct the agency to establish a system of classifying wastes which would recognize their degree of hazard potential and would insure that the most hazardous wastes can be adequately and promptly dealt with.

Our second major point of concern with the proposed regulations is the agency's proposal to subject NPDES permitted facilities such as industrially owned waste water treatment plants to regulation under RCRA. Although under section 1004 of the act discharges from an NPDES facility are excluded from the definition of "solid waste," under the proposed regulations discharges from a plant to a waste water treatment facility would be subject to the criteria, tests, and guidelines to determine whether the discharge is hazardous. If this untreated waste water is found to be hazardous, surface impoundment receiving such a discharge would be deemed a hazardous waste treatment, storage, or waste facility and would be subject to the rigorous standards of section 3004, including the need for an impermeable liner of either 10 feet of clay or 30 miles of plastic under the entire surface impoundment.

In the paper industry, the most common waste water treatment systems are those which employ aerated lagoons and or holding basins. A typical lagoon of this sort is over 100 acres in size. One lagoon in our industry exceeds 2,500 acres. The cost of retrofitting even a typical sized lagoon with an impermeable liner would be astronomical. The bottom operation cost of a new lagoon is estimated to run between \$75,000 and \$200,000 an acre, depending upon soil and other site specific conditions. Retrofitting would clearly be more expensive, much more expensive, plus the fact that during the time of retrofitting, which could be 6 months to a year, the mill

would have to be shutdown. The cost of this would obviously be unacceptable.

The only alternative to retrofitting, however, would be the construction of a new and separate waste water treatment system. In most of our mills there is no land available to construct another aerated lagoon-type system. The alternative waste water treatment approach would consume considerably more energy, further exacerbating our country's energy crisis. Moreover, the closing of existing lagoons would mean that in addition to the closing costs for these facilities, the industry would have wasted over \$2 billion which it has spent in recent years constructing under the Clean Water Act with EPA approval these aerated lagoon treatment systems.

We would hope that Congress would remind the agency that section 1006(a) of the act provides that RCRA shall not be construed to apply to "an activity or substance which is subject to the Federal Water Pollution Control Act except to the extent that such application is not inconsistent with the requirements of such Act." The agency's attempt to regulate under RCRA those treatment facilities constructed and permitted under the requirements of the Federal Water Pollution Control Act appear to be an obvious violation of the intent of the statute.

Our final concern has to do with the date which determines interim status under section 3005(e). Interim status would be granted to the operator of a facility which was in existence on the date of enactment of RCRA. However, those companies which are building facilities or have built facilities since October 21, 1976, are left in a regulatory limbo. The over 3-year hiatus between October 21 of 1976 and the date of the final promulgation of the regulation which is anticipated to be January 2, 1980, leaves many of our companies in the position of not knowing what standards they will have to conform with in constructing a facility. We urge strongly that the effective date under section 3005(E)(1) be changed from the date of the act to the date of final promulgation of the regulation.

In closing, let me again express the appreciation of the American Paper Institute and the National Forest Products Association for this opportunity to present our concerns with the implementation of RCRA to the subcommittee. I will be glad to try to answer any questions you may have.

[Testimony resumes on p. 177.]

[Mr. Wiechmann's prepared statement follows:]

STATEMENT OF RICHARD WIECHMANN, ON BEHALF OF THE AMERICAN PAPER  
INSTITUTE AND THE NATIONAL FOREST PRODUCTS ASSOCIATION

Mr. Chairman, Members of the Subcommittee:

I am Richard Wiechmann, Director of Solid Waste Programs for the Forest Industry Resource and Environment Program -- a joint program of the American Paper Institute (API) and the National Forest Products Association (NFPA). I also serve as Executive Director of the Solid Waste Council of the Paper Industry. I am here today on behalf of API and NFPA. The interests of these two organizations in the reauthorization of the Resource Conservation & Recovery Act (RCRA) are both substantial and clear. API's 200 member companies produce about 90% of all the pulp, paper and paperboard manufactured in the United States. As byproducts of their manufacturing processes and their pollution control and treatment processes, API's member companies generate substantial volumes of solid waste subject to various requirements of RCRA. Similarly, the 2500 forest products companies represented by NFPA produce a major portion of the nation's solid wood products such as lumber and plywood. Timber products processing and pollution control and treatment facilities also generate substantial quantities of solid waste which are subject to the requirements of RCRA.

Right at the beginning, our industries would like to commend the Environmental Protection Agency for the many opportunities for discussion and interchange of data it has provided during the



year and a half in which it prepared the hazardous waste regulations. As a result, we have provided the Agency with our comments on several drafts of both Sections 3001 and 3004 and we have also taken advantage of many less formal opportunities for input into the regulations-forming process. We greatly appreciated this open communication.

#### The Classification of Hazardous Waste

However, on reading the proposed regulations, published in the Federal Register on December 18, we are concerned at the broadness of the Agency's approach to defining hazardous waste and its imposition of the same treatment, storage and disposal requirements for all hazardous waste regardless of the degree of hazard. The Agency's simplistic method of defining "hazardous" waste would result in diverting scarce enforcement resources and secure disposal facilities to wastes which do not present a real hazard to human health and the environment. Let me elaborate.

At the time RCRA became law, the pulp, paper, paperboard and solid wood industries did not view themselves as major generators of hazardous waste. It was, of course, recognized that there were a few special situations where the wastes generated might be defined as hazardous. However, in light of the December 18 proposal, as well as the Hazardous Waste Advance Notice of Proposed Rulemaking, also published on December 18, our industry is deeply concerned at the extreme breadth of the Agency's definition of hazardous waste. The eventual regulations may classify many of our facilities as hazardous waste generators - which they are not - simply because the criteria developed by the Agency are not adequate determinants of likely hazards to human health or the environment.

This is the key weakness in the Agency's whole approach to hazardous waste control. Rather than classifying the potential hazards in particular situations, EPA has simply established a "pass-fail" determination which does not recognize the various degrees of hazard potential of a waste or the varying circumstances of its ultimate containment. As a consequence, the EPA's arbitrary "pass-fail" test would result in classifying as "hazardous" many wastes which have little or no impact on human health and the environment.

What is more, the Agency's proposal creates the curious result of exempting generators of small quantities of extremely hazardous waste from the rigorous control standards required by Section 3004, while at the same time requiring generators of large quantities of waste having a much lesser degree of hazard to comply with those rigorous standards. For example, a contractor study of the paper industry undertaken for EPA examines bark wastes. This study - under the maximum control option - finds: "Bark wastes are therefore concluded to be hazardous under RCRA". This is hard to comprehend, inasmuch as many householders use bark as a mulch and weed control around their foundation plantings.

The goals of RCRA are not best served by this approach. Congress envisioned some recognition of the varying degrees of hazard of solid waste. In our comments on the proposed regulations for Sections 3001, 3002 and 3004, filed formally with the Agency on March 16 and repeatedly throughout the pre-proposed stages of rulemaking, we have recommended that the Agency substitute for their over-simplified "pass-fail" approach to determining a hazardous waste, a classification

system which would create three or more different classes or categories of hazardous waste. In informal discussions with the Agency over the past months, however, we have been led to understand that the Agency rejects the classification system approach because it would be difficult to implement. We believe, nevertheless, that this was Congress' intent and that, in fact, the Act requires a classification system. RCRA defines "hazardous waste" as a solid waste "which because of its quantity, concentration, or physical, chemical, or infectious characteristics may -

- (a) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or
- (b) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed."

It seems clear therefore that Congress specifically provided for at least two classes of hazardous wastes: One consisting of those wastes which - even in small quantities - are a constant hazard in and of themselves; the other consisting of those wastes which may become a hazard - in other words, those which may pose a substantial hazard to health and environment when improperly treated, handled or stored. In the three-tier classification system which we recommended, our proposed Class I is the same as the first category and our proposed Classes II and III are simply a refinement of the second broad category.

Specifically, we recommended to the Agency that they expand upon the "degree of risk" concept implicit in the Act, first by creating three different classes of "hazardous waste" and second, by applying a different generator quantity exclusion for each class, as follows:

Class I would be those wastes which present a constant hazard to health or the environment and which require special care in storage, handling and disposal. Except for extremely hazardous waste, we would exclude those wastes where less than 100 kilograms a month are generated.

Class II would be those wastes which present a constant hazard to health or the environment, but which can be handled in a normal manner using standard containers and equipment, except for eventual disposal in secure land fills. We would recommend a 1,000 kilograms a month generator exclusion.

Class III would be those wastes which present no hazard to health or the environment when handled in a prescribed, controlled manner. These wastes would not be subject to the restrictive controls applicable to Class I and Class II, but would be subject to limited prescriptions for handling and disposal. For Class III we would recommend a 10,000 kilograms a month exclusion.

Under the December 18 proposed regulations, EPA has recommended a blanket 100 kilograms a month exclusion for all hazardous waste. We feel that, with certain extremely hazardous wastes, this blanket exclusion is unacceptable in the context of balancing the protection of human health and the environment with the economic impacts of the regulations. Small quantities of extremely hazardous waste would avoid any regulations while large quantities of wastes of a much lesser degree of hazard must meet the entire panoply of standards. To avoid this incongruous situation, we have recommended that the Administrator of EPA should review all Class I wastes and designate those which are extremely hazardous even in small quantities and allow no quantity exclusion for such wastes.

A final word on the classification system. Hazardous waste disposal sites are already in short supply. In order to prevent these scarce sites from being inundated with wastes which have only a slight degree of hazard, we believe the Congress should prepare legislative language to direct the Agency to establish a system of classifying wastes which would recognize their degree of hazard potential and would insure that the most hazardous waste can be adequately and promptly dealt with.

#### Applicability To NPDES Permitted Facilities

Our second major point of concern with the proposed regulations is the Agency's proposal to subject NPDES permitted facilities, such as industrially-owned wastewater treatment plants, to regulation under RCRA. Although, under Section 1004 of the Act, discharges from a NPDES facility are excluded from the definition of "solid waste",

under the proposed regulations, discharges from a plant to a wastewater treatment facility would be subject to the criteria, tests and guidelines to determine whether the discharge is "hazardous" waste. If this untreated wastewater is found to be "hazardous", the surface impoundment receiving such a discharge would be deemed a hazardous waste treatment, storage or disposal facility and would be subject to the rigorous standards of Section 3004. These include the need for an impermeable liner of either ten feet of clay or 30 mils of plastic under the entire surface impoundment.

In the paper industry the most common wastewater treatment systems are those which employ aerated lagoons and/or holding basins. A typical lagoon of this sort is over a hundred acres in size. One lagoon in our industry exceeds 2500 acres. The cost of retrofitting even a typical-size lagoon with an impermeable liner would be astronomical. The bottom preparation cost of a new lagoon is estimated to run between \$75,000 to \$200,000 an acre depending on soil and other site-specific conditions. Retrofitting would clearly be much more expensive, plus the fact that during the time of retrofitting (six months to a year) the mill would have to be shut down. The cost of this would obviously be unacceptable.

The only alternative to retrofitting, however, would be the construction of a new and separate wastewater treatment system. In most of our mills there is no land available to construct another aerated lagoon type of system. The alternative wastewater treatment approach would consume considerably more energy, further exacerbating our country's energy crisis. Moreover, the closing of existing lagoons

would mean that, in addition to the closing costs for these facilities, the industry would have wasted the over \$2 billion which it has spent in recent years in constructing, under the Clean Water Act with EPA approval, these aerated lagoon treatment systems.

Congress should remind the Agency that Section 1006(a) of the Act provides that RCRA shall not be construed to apply to "any activity or substance which is subject to the Federal Water Pollution Control Act, except to the extent that such application is not inconsistent with the requirements of such Act". The Agency's attempt to regulate under RCRA those treatment facilities, constructed and permitted under the requirements of the Federal Water Pollution Control Act, appear to be an obvious violation of the intent of the Statute.

#### Effective Date

The final concern which we wish to bring before the Committee has to do with the date which determines interim status under Section 3005(e). Interim status would be granted to the operator of a facility which was in existence on the date of enactment of RCRA. However, those companies which are building facilities or have built facilities since October 21, 1976 are left in a regulatory limbo. The over-three-year hiatus between October 21, 1976 and the date of the final promulgation of the regulation, which is anticipated to be January 2, 1980, leaves many of our companies in the position of not knowing what standards they have to conform with in constructing a facility. We urge strongly that the effective date under Section 3005(e)(1) be changed from the date of the Act to the date of the final promulgation of the regulation.

In closing, let me again express the appreciation of the American Paper Institute and the National Forest Products Association for this opportunity to present our concerns with the implementation of RCRA to the Subcommittee. I will be glad to try to answer any questions you may have.

March 12, 1979

STATEMENT OF  
THE AMERICAN PAPER INSTITUTE, THE CAN MANUFACTURERS INSTITUTE,  
AND THE GLASS PACKAGING INSTITUTE  
ON THE REAUTHORIZATION OF PUBLIC LAW 94-580  
"THE RESOURCE CONSERVATION AND RECOVERY ACT OF 1976"

The member companies of the American Paper Institute, the Can Manufacturers Institute and the Glass Packaging Institute appreciate the opportunity to comment on the matter of the reauthorization of Public Law 94-580--"Resource Conservation and Recovery Act of 1976."

In enacting Public Law 94-580 the Congress acted wisely and in a most timely fashion as it decided that the time had come to recognize that the proper management of the nation's solid waste would result in tapping new resources of industrial raw materials and energy. Thus, the law provides the guidelines for setting in motion at all levels of government, as well as the private sector, a national effort to maximize the potential of resource recovery. The achievement of the objectives of Public Law 94-580 would provide the four-fold benefit of (1) conserving materials and energy by recycling recoverable waste materials, (2) producing energy from the unrecyclable residue, (3) improving the environment by substantially reducing a major source of water and air pollution, and (4) aiding economic development by providing new sources of raw materials and energy to attract private industrial investment with the concomitant benefit of expanded employment opportunities.

The foresighted wisdom of the Congress is reflected in a landmark study of the New Jersey Department of Energy, published in October 1978. Known as the New Jersey Energy Master Plan, the study brings into focus the resource recovery potential of the State's presently burdensome solid waste. The Plan assumes that 3,400 tons of refuse per day, or 20% of over 17,000 tons of municipal solid waste generated each day will be source separated for recycling into new materials and



products; that 70% of the municipal waste stream will be processed in energy recovery facilities and the remaining 10% of the waste stream will be landfilled.

These assumptions represent the objectives of the New Jersey Department of Energy Master Plan. These objectives are translated into an energy conservation potential of notable, if not startling, proportions. The Plan states that the equivalent of over 2.2 billion kilowatt hours could be saved annually by the use of recovered materials from solid waste when compared to the use of virgin materials. The Plan states further--"when combined with the amount of energy produced from solid waste this represents the equivalent of the entire electrical energy needs for over 1.2 million average homeowners in New Jersey for an entire year, or over 50% of the total year-round housing units in the State." Thus, the energy conservation value of recyclable materials recovered through source separation, according to New Jersey's DOE Master Plan, is more than 40% of the estimated 5.5 billion kilowatt hours of energy value annually in New Jersey's solid waste.

To illustrate the economic development potential of effectively managed solid waste the Plan makes reference to a study of the Port Authority of New York and New Jersey entitled "Industrial Development Feasibility Study." This study projects the generation of almost 4,000 jobs in an integrated industrial recycling park of approximately 200 acres. Such an industrial recycling park would be based on the utilization of 2,000 tons per day of solid waste for the separation of recyclable materials and the production of energy. The projections are based on the assumption that primary and secondary manufacturing industries and related service activities could be attracted through such an integrated approach.

We see by this review of the planning experience of the State of New Jersey that the Resource Conservation and Recovery Act has given impetus to State solid waste planning activity and has undoubtedly accelerated the pace of such activity.

With this background we would like to share with you some concerns we have about the potential adverse impact of legislative enactments of the 95th Congress on future planning for a balanced materials/energy recovery approach to resource

recovery. These concerns stem from our perception of the need for greater coordination between the various agencies of government in the development of implementing plans and programs under these enactments. Highlighting these concerns is the inability of the Department of Commerce to obtain Administration approval of funds for activating the important duties devolving upon the Secretary of Commerce under Sections 5001, 5003 and 5004 of Subtitle E of Public Law 94-580.

The essential elements of Subtitle E related to the need for identifying and developing markets for recovered materials. These functions, if properly performed, will result in a meaningful cooperative effort between the government and American industry to develop on a sound basis viable resource recovery programs, for materials and energy recovery, throughout the nation. Working with industry the Federal government can introduce a more realistic and practical approach to the design of resource recovery programs mandated under the law. The Department of Commerce through its data gathering facilities and industry knowledge and expertise can become an effective point of coordination for materials and energy recovery program planning within the Executive Branch.

In the absence of effective Executive Branch coordination of resource recovery programs we are concerned, for example, that waste material markets will be preempted by what is perceived to be a headlong rush to embrace mixed waste processing and energy recovery technologies as the answer to solid waste disposal. Such an approach ignores the energy conservation potential of waste materials recovery and use through source separation, discussed above, and refuses to acknowledge the compatibility of materials/energy recovery approaches to effective solid waste management. The enactments of the 95th Congress which are sources of concern to the materials recycling industry include Public Law 95-238 "Department of Energy Act of 1978--Civilian Applications", Public Law 95-619 "National Energy Conservation Policy Act", and Public Law 95-91 "Department of Energy Organization Act." Public Law 95-238 authorizes the establishment of a loan guarantee fund of \$300,000,000 for the construction of commercial demonstration facilities for the conversion of solid

waste to energy. Commercial demonstration facilities costing up to \$50,000,000 each could be authorized under the terms of this law. The law does not specifically contemplate that applicants would be required to evaluate and report on the viability of source separated materials recovery programs as a precondition to the approval of the application.

Public Law 95-619 "National Energy Conservation Policy Act" provides for the establishment of "targets for use of recovered materials." The law contemplates that in certain specifically identified energy intensive industries, producers would be required to include yet to be specified amounts of recovered waste materials in the raw materials mix. While the objectives are laudable, we are concerned that chaos would result in the absence of solid marketing information on the availability of waste material supplies. Also, the potential for obtaining additional increments of waste raw materials within a mandated time frame must be quantified. We wish to avoid the kind of market disruption that was caused by DOE's home insulation program in 1977. The shortage of wastepaper caused by the rapid entry into the market of cellulosic insulation manufacturers caused prices to skyrocket and threatened wastepaper mill shutdowns. This could have been avoided by proper advance planning and providing adequate lead times to generate the required additional supplies.

Public Law 95-91 "Department of Energy Organization Act" requires the President to prepare and to submit to the Congress a proposed National Energy Plan. Here again the broad mandate contemplates, as it properly should, the full utilization of existing resources and technology for maximizing the efficient utilization of the nation's energy resources. The concern persists that energy production from solid waste may override favorable consideration of materials recovery and the concomitant energy conservation benefits derived from the use of recovered materials.

We suggest that the Resource Conservation and Recovery Act of 1976 must now be viewed in the broader perspective which includes the new legislative enactments noted above.

We believe that the functions of resource conservation and recovery are moving into a critical second phase following the establishment of basic guidelines and procedures by the Environmental Protection Agency. We believe that the House Committee Report on the law may have contemplated the phasing in of the Department of Commerce's role at this juncture. On page 43 the Report states... "the strength of recovered materials markets is the key to a successful resource recovery project, whether it involves a high technology, capital intensive waste processing plant, or a source separation scheme." In discussing the Department of Commerce relationship to business and industry the report further states "The Department of Commerce has, because of its long standing relationship with private enterprise, the channels of communication necessary to encourage greater involvement in resource recovery and use of recovered materials."

The basic framework of Public Law 94-580 is sound with respect to the promotion of a balanced approach to materials and energy recovery. A weakness lies in its implementation by virtue of the void which is perceived to exist in the government's coordinating mechanisms. We believe that the activation of functions of the Department of Commerce and the assumption by the Secretary of a leadership role will result in a more cohesive planning effort on the part of the Federal government.

We urge the Committee to provide to the Department of Commerce the necessary authorization of funds in the pending reauthorization Bill. We urge also that the Committee make clear in its report that the Secretary of Commerce is expected to serve as the focal point in the Executive Branch on all matters having to do with resource conservation and recovery. The Secretary would be responsible for the review and coordination of Federal agency programs or actions affecting the disposal, use and regulation of recyclable waste materials.

Mr. FLORIO. Mr. Malloy.

# STATEMENT OF B. CHARLES MALLOY

Mr. MALLOY. Mr. Chairmam my name is Chuck Malloy. I am the chairman of the ASTM Subcommittee D-19.12.

I would like to thank the committee for letting us appear here today.

The American Society for Testing and Materials, ASTM, is a voluntary organization, which is concerned with the development of consensus standards covering a broad range of methods and materials. The Office of Management and Budget and the National Standards Policy Advisory Committee have recommended that Government agencies should use methods and test procedures that have been developed by consensus groups such as ASTM.

ASTM Subcommittee D-19.12, of which I am chairman, has developed an extraction procedure for estimating the leaching potential from solid waste materials. This is the type of procedure which is the heart of the waste classification system to determine which wastes will be considered hazardous under the Resource Conservation and Recovery Act, Public Law 94-580.

I might note here that our subcommittee is made up of State and Federal agencies, industries, universities, independent labs, and consultants.

ASTM D-19.12 submitted detailed comments to EPA regarding the use of such procedures for classifying waste materials as to hazard. The main thrust of the ASTM comments is that no single procedure of this type can adequately define and classify all waste materials. The use of a single procedure to classify all waste has the potential for both missing certain wastes which do present actual hazards and for overclassifying other wastes. While arguing that no single test is applicable, the ASTM subcommittee has recommended, for technical reasons, that a water extraction procedure, until such time as a more comprehensive classification system can be developed by EPA.

Mr. FLORIO. What would be the impact of your suggestion in terms of the existing lists EPA is putting out. Would they be more or less restrictive.

Mr. MALLOY. It is not a question of restrictive?

Mr. FLORIO. Would you encompass more materials?

Mr. MALLOY. We would not encompass them all using water but under the EPA's suggested extraction procedure, you will not pick up any of your organics. It does not work on organics at all.

Mr. FLORIO. All right.

Mr. MALLOY. In addition to the general problems associated with the use of such a procedure, there is concern regarding the precision of the methods. EPA has not released precision or cost data on their extraction procedure, the EP as it is now called, and has not performed any tests on the EP. Supporting data on toxicity tests, based on extracts from the EP, have also been unavailable for comments. The ASTM procedure and not the EP, has been subjected to an interlaboratory test program. Tests on this procedure have shown that a lot of "scatter" can be expected in the results, and preliminary tests by the ASTM group showed that the TEP, the former version of the EPA's current procedure, also has poor preci-

sion. Considering both the chemical problems and the precision problems that are evident, there is concern in the scientific community that it may not be possible to develop a suitable single test procedure.

To resolve these difficult technical problems and provide information suitable for use in developing an appropriate classification system recognizing degree of hazard, ASTM subcommittee D-19.12 has initiated a program to test the leaching potential of fossil fuel combustion byproducts using both the ASTM and EPA methods. Results of these tests are beginning to be evaluated.

Additionally, ASTM is now embarking on a new program which will evaluate the ASTM and EPA procedures and will examine possible modifications to these procedures, in an attempt to arrive at a suggested extraction procedure or set of extraction procedures for use in the classification system.

A highly qualified technical task group has been established to design and conduct a new test program and an advisory group has been organized by ASTM D-19.12 which includes members from EPA, Department of Energy, the National Governors Association, State environmental agencies, environmental groups, and industry. When the program is completed, it is expected that the data will be sufficient for an informed decision as to the suitability of these procedures for use in a waste classification system.

We hope that the current ASTM programs will result in the development of a classification procedure which reflects sound environmental management and which will be useful to the EPA and to the Nation as a whole.

Members of the ASTM subcommittee are available if you or your staff wish to meet to discuss the extraction procedures in more detail.

Mr. FLORIO. Are you familiar with the classification system that the American Paper Institute makes reference to in its testimony?

Mr. MALLOY. On site specific conditions, yes, I think we are all in agreement on this, that somehow there has to be site specific conditions put into any type of protocol. Many within the technical community feel that 3001, 3004 should be more or less combined to take into consideration the waste and where it is to be placed, and I think you could find that running throughout the State agencies. A lot of people within the EPA research all tend to the same conclusion.

You made reference to the expense in modifying lagoons, if in fact it is felt by EPA that there is modification needed. I don't think—I assume the industry would have no difficulty in being socially progressive enough to be aware of the need to deal with the problem if there is an acknowledged hazardous waste being kept in one of these waste water lagoons, and there is insufficient protection by way of barriers or clay liners such that the industry will, I assume, respond, if in fact there are changes notwithstanding the economic hardships that may be there.

Mr. WIECHMANN. I think the point we were trying to make, Mr. Chairman, is that the waste water which goes into our lagoons, first of all, we do not believe should be considered hazardous. It is treated merely by getting oxygen into it. There is no chemical treatment or anything that takes place. It is a matter of basically

getting more oxygen into this water before it goes into the rivers, and at that point it is considered perfectly adequate by EPA to go into the rivers.

Mr. FLORIO. Is it currently considered hazardous?

Mr. WIECHMANN. This is the point. Looking at the broad definition which I mentioned before and this simple pass-fail approach as to whether it is. We do not think in any way it would impact unfavorably on an aquifer. We have no way of measuring, and I don't think anyone does, even if you had the 10 feet of clay, whether there actually would be leakage from a basin into an aquifer. Many of our lagoons, of course, are converted lakes, swamps, dammed valleys or what have you that have been utilized for a temporary holding situation.

We as a rule do not have permanent holding facilities as other industries may have, with one or two exceptions. We have aerated lagoons. The usual holding time is 8, 9, 10 days, and then the waste water has been treated, it has gotten back its oxygen and it goes into the river or lake.

Our problem here is, we do not know what is going to be required. The regulations as they are proposed could, if this is found to be hazardous at the point it enters the treatment plant, which is where this has to be measured, if that is hazardous, then we have a hazardous waste facility.

What we are saying to EPA is this. We do not think that an existing facility should be required to do all that. Their definition of hazardous does not take into account really whether there is a great impact on the environment, but merely is a pass-fail determination. If we fail that determination, we are concerned, since we have these existing facilities. They were built under EPA permit, using EPA approved technology, and we think that they should be treated differently than a new facility.

Rather than an impermeable liner or something like that, maybe there should be some wells to monitor what is in the aquifer to the best of our knowledge. In some cases we have had lagoons in existence for over 10 years. We have no knowledge and no belief that there is anything coming out of those impacting any aquifer, but we look at the regulation and we are concerned.

Mr. FLORIO. Gentlemen, we appreciate your help, and we look forward to receiving from you subsequent testimony and more specific information, particularly with regard to the test.

Mr. MALLOY. We will be writing our formal comments on the EPA law. There is an extension for 60 days. We will have a 2-day meeting.

Mr. FLORIO. Thank you very much. The committee stands adjourned.

[Whereupon, at 12:10 p.m., the subcommittee adjourned to reconvene at 9 a.m., Wednesday, March 28, 1979.]





## RESOURCE CONSERVATION AND RECOVERY ACT AUTHORIZATION

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WEDNESDAY, MARCH 28, 1979

HOUSE OF REPRESENTATIVES,  
SUBCOMMITTEE ON TRANSPORTATION AND COMMERCE,  
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,  
*Washington, D.C.*

The committee met at 9 a.m., pursuant to notice, in room 2322, Rayburn House Office Building, James J. Florio, chairman, presiding.

Mr. FLORIO. I want to welcome you to the second day of hearings on the reauthorization of the Resource Conservation and Recovery Act of 1976. Yesterday, as many of you recall, we heard testimony pertaining to subtitle C of the act, which deals with hazardous waste management and disposal. Today we will concentrate on the remaining provisions of the act, which include statewide solid waste planning and the encouragement of resource recovery technologies and markets for recovered materials.

Today, the committee will specifically address itself to the status of Federal activities underway in the Environmental Protection Agency, the Department of Commerce, and the Department of Energy. It will also review the accomplishments which have been achieved to this point.

In addition, the subcommittee will be considering deficiencies in the act, with an eye toward strengthening the provisions of the law so as to achieve the goals initially set in 1976.

I would also hope that one product of the hearings will be an attempt to address the overlapping jurisdictional questions making reference to a local situation in my own congressional district. In one county, plans have been approved by EPA for solid waste management planning in Camden County, since a joint application has been approved for Camden City and Camden County.

Across the county border, in Gloucester County, the Department of Energy is issuing grants for planning for a totally different methodology with regard to sludge and the energy generating capacities out of the solid waste stream.

Through the community development grant process, HUD is considering an application for a trash compactor transfer station in Camden County. Likewise, we have a composting program, although it does not seem to be working very well. It was previously approved for the largest city in the area.

The picture I am painting is one of a somewhat inconsistent approach by the various Federal agencies involved in terms of planning and providing money for capital development, all before someone has really given serious thought as to what each community's needs are.

That is to say, there is some question as to whether or not the county should be the appropriate resource area to draw upon in the solid waste flow stream. What I am suggesting is that it may very well be a time to take a step backward and determine that there is a need for overall coordination among DOE, with its inclination to look at solid waste as a source of energy; EPA, with its legitimate concern for environmental considerations flowing out of solid waste disposal and management; and the Department of Commerce with its equally legitimate concerns to emphasize and promote resource recovery out of solid waste.

Out of these hearings, we will hopefully receive some sense of direction as to how we can get all the agencies to proceed in the same direction, perhaps in the direction of the public interest.

I can assure all the witnesses this morning that their submitted testimony has been read in great detail by myself and the staff. We are familiar with the contents, and to maximize the minimum amount of time we have for questions and answers, which is as valuable as the presentation of testimony, we ask that you submit your testimony in its entirety for the record.

We also ask the witnesses to confine themselves to a 10-minute or so summary of their statements' major points. Likewise, individuals who are not testifying may feel free to submit their written statements, for inclusion in the record.

I would now like to welcome our first witness, a respected member of the Congress, who has a long history of involvement in Resource Conservation and Recovery, Congressman Robert Drinan of Massachusetts. The Congressman was instrumental in formulating the initial legislation. We welcome you to the committee, Father.

#### STATEMENT OF HON. ROBERT F. DRINAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MASSACHUSETTS

Mr. DRINAN. Thank you very much, Mr. Chairman. I appreciate this opportunity to testify on the reauthorization of the Resource Conservation and Recovery Act. I thank you very much for your kind words, and it is true that I have had a very extensive past involvement with RCRA. I would like to make several recommendations for the improvement of the act.

Mr. Chairman, in early 1975 I introduced the predecessor to this act, entitled the Solid Waste Energy and Resource Recovery Act. During the 94th Congress, I testified on my bill's behalf before the Science and Technology Subcommittee on Environment and the Atmosphere, and before the House Government Operations Subcommittee on Environment, Energy and Natural Resources.

Later, I and my staff worked very closely with the staffs of these committees in drafting many of the resource recovery sections which are now law.

Viewing municipal solid waste as one of the Nation's most promising new energy sources, Mr. Chairman, the implementation of RCRA could not have been a greater disappointment. Only about 1 percent of the trash generated in the United States this year will be converted to energy. If all the facilities currently undergoing construction or advanced planning are completed, only 7 percent of the waste stream, or 13.4 million tons of trash per year, will be

converted to energy by 1985. Even if all projects now in the preliminary planning stages are completed, less than 18 percent of the waste stream will be converted to energy by the middle of the next decade.

Most analysts believe that solid waste could play a far more significant role in meeting the energy needs of this country. EPA estimates that more than half the waste stream, or 12 million tons of trash per year, could economically be converted to energy by 1985. This would produce the equivalent of 174 million barrels of crude oil, and some experts believe the potential is even greater.

In New England, Mr. Chairman, solid waste is regarded as one of the region's most promising new energy sources. Resource recovery facilities are already operating in Bridgeport, Conn. and in Saugus and East Bridgewater, Mass. Almost 4,000 tons of trash per day are currently being processed into boiler fuels, recycled metals, and the industrial process steam just within the six-State region of New England.

The untapped energy-from-trash potential is even greater. An energy policy project sponsored by the New England Congressional Caucus found last November that resource recovery could provide 730 megawatts of electricity, or the equivalent of 7.5 million barrels of oil per year in the New England region by 1985. At the appropriate time, Mr. Chairman, I would like to make these resource estimates available for the subcommittee hearing record.

In this context, faced with the current energy dilemma, I fail to see how the Federal establishment can be satisfied with achieving less than 20 percent of solid waste's energy potential by the middle of the next decade. I see no justification, for example, for the United States having only 20 resource recovery plants in operation at this time when Europe has more than 240.

I lay this dismal failure of public policy right on the doorstep of the EPA and the Department of Energy. No additional legislation should be necessary to achieve the energy potential of solid waste, Mr. Chairman. I am convinced, however, that unless the subcommittee provides an unequivocal mandate to maximize the energy potential of RCRA, and unless this mandate is backed up in the budget process, both EPA and DOE will continue to bungle the job of recovering energy and materials from solid waste.

Mr. Chairman, if I may, I would like to offer briefly six specific suggestions to the subcommittee for improving RCRA.

First, the subcommittee should end the divisiveness which has existed between the resource recovery and hazardous waste programs at EPA. Perhaps it would be worthwhile to question whether two such disparate programs should be bound by the same authorizing legislation. There is no good reason why two such worthy programs should compete for the same funds and personnel. Yet EPA has consistently hidden behind its hazardous waste mandate as an excuse for its massive failures in the development of resource recovery.

Last year, for example, EPA said "It is doubtful that the authorities in RCRA for resource conservation and recovery are strong enough to justify a major shift in that direction." That is certainly not the result which I or which this subcommittee had clearly intended in 1976.

Second, the subcommittee should seriously question whether EPA is the appropriate agency to commercialize energy from trash technologies and whether a transfer of jurisdiction to DOE might be more appropriate. This is the item to which you referred, Mr. Chairman, and frankly, if James Schlesinger were not the Secretary of Energy, I might well recommend such a transfer without the hesitation of a moment.

EPA's mandate is for environmental protection, whereas DOE has a broader responsibility to provide "an adequate and reliable supply of energy at the lowest reasonable cost." Given a limited budget and a choice between regulation or active promotion of resource recovery, it seems that EPA will always choose regulation.

As I said in a letter to EPA last year, "the agency is effectively placing a higher priority on burdening cities and towns with new regulatory problems than on assisting them with energy-efficient and environmentally acceptable solutions." I have seen little evidence, Mr. Chairman, that EPA's attitude has changed since that time.

Third, to give a sense of immediacy to its resource recovery program, EPA and DOE should jointly establish goals for energy and materials recovery from trash. These goals should reflect a 5-year, 10-year, and perhaps even a 20-year time frame, and they should be periodically updated by public review and comment.

The establishment of such goals would finally give Congress a standard by which to judge the progress of Federal resource recovery efforts.

Fourth, Mr. Chairman, EPA's technical assistance panels under RCRA should be expanded to the extent practicable into a promotional role on behalf of resource recovery. At the very least, EPA should know how much of its technical assistance is devoted to hazardous waste, how much to regulatory problem solving, and how much to energy and materials recovery.

In the past, that information simply has not been available. EPA's regional offices should not merely wait for cities and towns to request technical assistance, but they should, if you will, advertise their services and actively seek to identify potential candidates for resource recovery at the municipal level. Under current policy, there has been an almost complete lack of even information about resource recovery.

Fifth, the solid waste R.D. & D. should be brought into the real world. The R.D. & D. programs administered by FEA and DOE should concentrate on short-term technical problems which must be resolved to bring emerging technologies on line at this present time. Research should especially be redirected toward source separation and small-scale modular applications of resource recovery which can be economically utilized by smaller cities and towns.

EPA, Mr. Chairman, should once and for all make up its mind about the state of the art of resource recovery. Four years ago the agency wrote to me that "Some technologies are near the commercialization stage and a delay for further research and development is unnecessary." Three years later the agency completely reversed itself, stating: "Technologies [for resource recovery] are still in early stages of research and application," and that a major commercialization effort "would not be logical \* \* \* at this time."

Perhaps the greatest problem with R.D. & D. has been redundant research and the complete lack of coordination between EPA and DOE. The subcommittee should mandate that an interagency solid waste R.D. & D. plan be developed jointly by the two agencies every other year. This plan would finally put DOE and EPA in touch with the resource recovery industry, a relationship which, I regret to say, simply does not exist at the present time.

Sixth, the Federal Government should make some long-term decisions about financial incentives for resource recovery, and it should abide by them. This is particularly important since many local officials have delayed decisions on energy recovery facilities in the hope that eventually they will be reimbursed for doing so. That is a problem which exists in my own congressional district and, I am certain, Mr. Chairman, in your own.

Neither the DOE's loan guarantees or the EPA's new grant program reflect a coherent approach to the financing of resource recovery programs and facilities. Rather, they reflect a financial picture which changes needlessly from year to year. In response to this problem, the subcommittee should mandate a 1-year interagency study of resource recovery financing to be conducted jointly by EPA, DOE and the Department of Commerce.

That study should assess existing financial arrangements and should recommend those financial incentives which will maximize the near-term recovery of energy and materials from urban waste.

In closing, Mr. Chairman, I need only repeat the conclusion reached last month in a very important study by the GAO. The Government's resource recovery program "appears fragmented, uncoordinated, inadequately funded, uncertain of its priorities, and lacking in detailed overall strategy." One could hardly say it better.

Municipal solid waste, Mr. Chairman, can represent either an enormous headache for State and local officials or it can represent one of the most promising short-term energy sources available in the United States. I know that this subcommittee will accept the latter view and that it will make implementation of resource recovery one of the highest priorities in the Nation's energy and environmental policies.

I thank you very much.

[Mr. Drinan's prepared statement follows:]

STATEMENT OF HON. ROBERT F. DRINAN, A REPRESENTATIVE IN CONGRESS FROM  
THE STATE OF MASSACHUSETTS

Mr. Chairman, I appreciate this opportunity to testify on the reauthorization of the Resource Conservation and Recovery Act of 1976 (RCRA). I would like to briefly outline my past involvement with RCRA and then make recommendations for the improvement of the Act.

In early 1975, I introduced RCRA's predecessor, the Solid Waste Energy and Resource Recovery Act. This bill, ultimately sponsored by more than 100 Members of the House, was the first comprehensive legislation intended to maximize the recovery of energy and materials from municipal waste. During the 94th Congress, I testified on its behalf before the Science and Technology Subcommittee on Environment and the Atmosphere, and before the House Government Operations Subcommittee on Conservation, Energy and Natural Resources. Subsequently, my staff worked closely with the staffs of the Commerce and Science Committees in drafting many of the resource recovery provisions of RCRA, particularly Subtitle H.

Viewing municipal solid waste as one of the nation's most promising new energy sources, Mr. Chairman, I do not think that RCRA's implementation could have been a greater disappointment. Only about 1 percent of the trash generated in the United

States will be converted to energy during 1979, according to data from the Environmental Protection Agency (EPA). If all facilities presently in the construction and advanced planning stages are completed, only about 7 percent of the waste stream—or 13.4 million tons of trash per year—will be converted to energy by 1985.

Most analysts believe that solid waste could play a far more significant role in producing energy over the next decade. EPA estimates that about 56 percent of the waste stream—or 112 million tons of trash per year—could economically be converted to energy by 1985. This would produce about 1 quadrillion Btu's of energy, or the equivalent of 174 million barrels of crude oil per year. This energy potential has been confirmed by the work of the U.S. General Accounting Office (GAO), the Office of Technology Assessment and by the MITRE Corporation in work for the Energy Research and Development Administration. Indeed, some experts believe the potential is even greater.

At a time of oil shortages, 60 cent-per-gallon heating oil and the threat of dollar-a-gallon gasoline, I fail to see how the Federal establishment can be satisfied with achieving only 12 percent of solid waste's energy potential by 1985. I see no justification for the United States having only 20 resource recovery plants in operation when Europe has more than 240. And I lay this dismal failure of policy right at the doorstep of EPA and the U.S. Department of Energy (DOE).

I am convinced, Mr. Chairman, that no additional legislation should be necessary to achieve the energy potential of solid waste. Federal agencies already have ample statutory authority to implement an aggressive resource recovery program along the lines I and others have suggested, and—given strong program managers—little more than a simple extension of RCRA should be required. I am also convinced, however, that unless this Committee provides an unequivocal mandate to maximize RCRA's energy potential, and unless this mandate is backed up in the budget process, both EPA and DOE will continue to bungle the job of recovering energy and materials from solid waste.

I would like to offer the following six suggestions to the Committee for improving RCRA in the course of the current reauthorization process.

First and foremost, the Committee should end the false dichotomy which has existed between the resource recovery and hazardous waste programs within EPA; perhaps to the extent of seriously questioning whether these two programs should be covered by the same authorizing legislation. There is no good reason why two such worthy programs should compete for funds and personnel, yet EPA always hides behind its hazardous waste mandate as an excuse for its massive failures in resource recovery. In last year's draft implementation plan, for example, EPA said that "it is doubtful that the authorities in RCRA for resource conservation and recovery are strong enough to justify a major shift of emphasis in that direction." This is certainly not the result which I or this subcommittee had intended in 1976.

Second, the Committee should seriously question whether EPA is the appropriate agency to commercialize energy-from-trash technologies, and whether a transfer of jurisdiction to DOE might be more appropriate. Frankly, Mr. Chairman, if James Schlesinger were not Secretary of Energy, I might recommend such a transfer without hesitation.

EPA's primary mandate is for environmental protection, while DOE's mandate is to provide "an adequate and reliable supply of energy at the lowest reasonable cost." Given a limited budget and a choice between regulation or active promotion of resource recovery, EPA will always choose regulation. As I said last year in comments on EPA's RCRA implementation plan, "The Agency is effectively placing a higher priority on burdening cities and towns with new regulatory problems than on assisting them with energy-efficient and environmentally acceptable solutions." I have seen little evidence that this situation is changing.

There are, of course, many disadvantages inherent in such a transfer: it would sacrifice years of experience which has been gained by EPA's Office of Solid Waste, it might seriously disrupt committee and subcommittee jurisdiction in the House, and it would require that EPA still play an active role in regulation, in "waste reduction," and in placing appropriate environmental constraints on DOE's commercialization programs. Nevertheless, Mr. Chairman, this kind of transfer should be actively considered. As GAO recommended last month, "should EPA not act responsibly (in promoting resource recovery) . . . we would then agree that a leadership change should be considered by Congress."

Third, to give a sense of immediacy to its resource recovery programs, EPA and DOE should jointly establish goals for energy and materials recovery from trash. These goals should reflect a 5-year, 10-year and perhaps 20-year time frame, and they should be periodically updated based on public review and comment. The goals should reflect the type and maximum amount of energy and materials which realistically can be recovered from urban waste; and the percent of the waste

stream which can optimally be utilized for resource recovery. This would give the subcommittee a standard by which to judge the future progress of Federal resource recovery programs, and reflects a primary recommendation made last month by the GAO.

Fourth, EPA's technical assistance panels under RCRA should be expanded, to the extent practicable, into a promotional role on behalf of resource recovery. Although this emphasis should certainly not detract from attention to hazardous waste problems, EPA—at the very least—should know how much of its technical assistance is devoted to hazardous wastes, how much to regulatory problems, and how much to energy and materials recovery. In the past, this information has simply not been available.

EPA's regional offices should not merely wait for cities and towns to request technical assistance, but they should "advertise" their services and actively seek to identify potential candidates for resource recovery. EPA has consistently failed to meet the mandate, contained in RCRA, that 20 percent of federal solid waste funds be spent on technical assistance to state and local governments. From my own experience in Massachusetts, I can say that the result of EPA's failure has been a complete lack of information about resource recovery at the municipal level.

Fifth, and this involves the jurisdiction of both the Commerce and Science Committees, solid waste RD&D should be brought into the "real world". The RD&D programs administered by EPA and DOE should concentrate on short-term technical problems which must be resolved to bring emerging technologies on line now. Research should also be redirected toward source separation and small-scale modular applications of resource recovery which can be utilized by smaller cities and towns.

Indeed, EPA should make up its mind about the state of the art of resource recovery. Four years ago, the Agency wrote to me that "some technologies are near the commercialization stage and a delay for further research and development is unnecessary." Three years later, the Agency completely reversed itself, saying that "technologies (for resource recovery) are still in early stages of research and application" and that a major commercialization effort "would not be logical . . . at this time."

Perhaps the greatest problem with RD&D has been redundant research and the complete lack of coordination between EPA and DOE. Each solid waste RD&D contract should routinely be reviewed by the other agency before bids are solicited, much like the "Interagency Proposal Review Process" currently in use for contracts let by the Department of Agriculture. The Committee should probably go one step further by mandating that an interagency solid waste RD&D plan be developed by the two agencies every other year—a plan which would require public input, and which would finally force EPA and DOE to make the sustained contacts with the resource recovery industry which, thus far, they have scrupulously avoided.

The interagency planning process is the single most important recommendation made in GAO's urban waste report, and it should be a priority issue in the committee's approach to RCRA reauthorization.

Sixth, the federal government should make some long-term decisions about the financial incentives for resource recovery—and it should stick with them. This is particularly important since many local officials have delayed decisions on energy recovery facilities in the hope that they will be partially reimbursed for doing so. The issue of financial incentives, particularly loan guarantees, was the focus of the Ford Administration's initial opposition to RCRA, and as a result of this opposition, no major incentives were included in the final legislation.

Since 1976, DOE has been given broad loan guarantee authority (which has been left unused), and EPA has been given authority for about \$15 million in resource recovery implementation grants under the President's urban program. Neither of these programs reflects a coherent approach to the financing of resource recovery programs and facilities. Rather they reflect a financial picture which changes needlessly from year to year.

Specifically, I urge the subcommittee to mandate a one-year, interagency study of resource recovery financing, to be conducted jointly by EPA, DOE and the Department of Commerce. This study should include a comprehensive assessment of existing financing options for resource recovery, and should recommend those financial incentives which will maximize the short- and mid-term implementation of energy and materials recovery from urban waste.

While many energy-from-trash technologies are already economically competitive without government subsidies, I do believe that modest Federal involvement in financing resource recovery facilities could dramatically increase the amount of energy recovered from urban waste over the next decade.



In closing, Mr. Chairman, I can only concur with GAO's comment that the government's resource recovery program "appears fragmented, uncoordinated, inadequately funded, uncertain of its priorities, and lacking in detailed overall strategy." Municipal solid waste can represent either an enormous headache for state and local officials, or it can represent one of the most promising short-term energy sources available in the United States. I urge the subcommittee to heed GAO's warning and make resource recovery implementation one of the highest priorities of the nation's energy and environmental policies.

Mr. FLORIO. Thank you very much.

We appreciate your extremely comprehensive statement, especially your specific suggestions, which are always very helpful. I just wonder if you are at all apprehensive about two things. One is apprehension over emphasizing the energy-generating potential of solid waste, implying perhaps a greater role for EPA. The other is apprehension over the inclination to generate energy primarily through incineration methods. Since the incineration process is almost antithetical to resource recovery to the extent that we are burning, not recycling the paper. So in some respects, energy-generating initiatives are counteractive to our efforts at source separation or resource recovery, in the sense that resource recovery extracts things from the solid waste.

Mr. DRINAN. Mr. Chairman, you express very well the inherent dilemma in this situation, the problems underlying the decision of whether DOE or EPA should have primary jurisdiction. I know that your subcommittee will resolve this in the most satisfactory manner.

Mr. FLORIO. We appreciate your confidence.

Just another aspect of this dilemma: you have been emphasizing EPA and DOE; it seems to me that equal emphasis should perhaps be given to the Department of Commerce, particularly inasmuch as it appears to have the higher degree of expertise in promotional activities. This assumption holds true if in fact the private sector is going to play a more important role in solid waste recycling and resource recovery.

So it is a question of which of the three agencies will be given paramount jurisdiction over setting direction we want to go in terms of utilizing the solid waste stream more effectively.

Mr. DRINAN. You make an excellent point. The Department of Commerce is involved. They were involved in the implementation in the areas in New England I mentioned. I would assume that the Department of Commerce would be restricted by its mandate to the promotion, to the financing, to the implementation of programs approved, in essence, by the EPA or DOE.

But the Department of Commerce should be much more aggressive about seeking financing for these particular programs.

Mr. FLORIO. To be perfectly frank, I am convinced that the only way we are going to get solid waste treatment and resource recovery facilities in our Nation will not be through governmental initiatives. We are not going to have a repeat of the sewerage treatment approach where massive amounts of money are provided by the Federal Government for the establishment and construction of solid waste treatment facilities.

There may be some governmental coordination necessary, but what is necessary is to induce the private sector to become involved in constructing and making a profit out of solid waste. I am convinced that the potential for profit is there as I am also convinced



that the public interest will be served. Therefore, it may well be that the promotional aspect of this whole area of concern, the creation of markets, are probably the two most important parts of what has to be done in order to effectively utilize solid waste, and this is within the province of the Department of Commerce.

Mr. DRINAN. I agree totally with you, Mr. Chairman, and I go back to what I said in my statement. There are only 20 resource recovery plants in operation now, while in Europe, with a smaller continent, they have more than 240. The Department of Commerce can and should offer resources, or at least, as you suggest, offer coordination.

I commend to you the plant in Saugus, Mass., as the ideal of operating within the free enterprise framework. They supply energy every day to General Electric. They assist 20 or 30 communities to dispose of their solid waste around the City of Lynn, and I would say it is a model of what could be done across the country.

Mr. FLORIO. Another issue you raised, which I thought was interesting, is the use of modular units. This is being done in the New York Port area. The New York Port Authority has become involved in an initiative to provide for modular units associated with industrial park development. That is to say that the solid waste facility would be specifically equipped to provide an energy source for relatively small areas.

This, of course, restricts the capital needed, and almost, in a sense, makes it a pay-as-you-go operation since the recycling can effectively pay the cost of running a relatively small facility created to dispose of the trash generated out of the New York area.

Mr. DRINAN. The potentials are really enormous when one puts one's mind to it, and that is another reason I am certain the subcommittee here is going to give added stimulus to Federal agencies and to the private sector.

Mr. FLORIO. We thank you for your help.

Mr. DRINAN. Thank you very much.

Mr. FLORIO. Our next witness is Mr. Jordan Baruch, Assistant Secretary of Science and Technology for the Department of Commerce.

Mr. Baruch, we welcome you to the committee.

Mr. BARUCH. Thank you, Mr. Chairman.

Mr. FLORIO. As was indicated, your statement will be made part of the record, and we would appreciate your in a summary fashion.

Mr. BARUCH. I will try to make a 6-minute summary.

#### **STATEMENT OF JORDAN J. BARUCH, Sc. D., ASSISTANT SECRETARY FOR SCIENCE AND TECHNOLOGY, DEPARTMENT OF COMMERCE**

Mr. BARUCH. Mr. Chairman, we do have a problem. We are drawing on our virgin resources in this country at an unprecedented rate, and many of these resources are not renewable. Certain of this Nation's balance-of-payments problems are exacerbated by the fact that we have to import many of these resources.

At the same time, our Nation is generating about 150 million tons of postconsumer waste per year, and from that we dump or bury annually about 20 percent of our Nation's requirements for

tin and aluminum. Both of those raw materials, of course, are primarily imported.

Mr. Chairman, in the Resource Conservation and Recovery Act and other legislation, the Congress has recognized the need to conserve U.S. resources. There are various means of resource recovery from waste streams that can be employed, such as mass burning. Each of these means must be considered in terms of a tradeoff between the recovery of energy and the recovery of materials. No matter which method is selected, however, it must be designed to provide recovered commodities in an acceptable form and at acceptable prices so that they can be marketed. Only in this way can resource recovery hope to be made into a profitable operation.

To assure the marketability of recovered materials, the Secretary of Commerce in the Resource Conservation and Recovery Act is directed to identify markets for recovered materials, identify economic and technical barriers to the use of such materials, and to encourage the development of new uses for recovered materials.

In light of these responsibilities, the Department of Commerce has identified two major objectives for our program: First, to encourage greater commercialization of technologies leading to increased recovery of resources from wastes which were otherwise destined simply for disposal; second, to provide a framework for fostering the technological advances required to optimize the mix of economic, environmental and commercial factors associated with the disposal and subsequent recovery or reuse of resources found in the postconsumer waste stream.

To this end, the Department has been developing plans to establish a Technical Advisory Center (TAC) for resource recovery. The TAC is designed to form institutional partnerships between all of the parties of interest—affected industries, users of recovered commodities, State and local governmental bodies, and so forth.

The TAC would enable the department to meet its responsibilities under Subtitle E of the Solid Waste Disposal Act, and will complement the responsibilities assigned to other agencies under the Solid Waste Disposal Act as Congress intended. The TAC would interact with industry, State and local governments and other parties of interest to evaluate and develop priorities for the recycling and/or reuse of recovered resources on the basis of economic and market factors.

Thus, the Department of Commerce would establish a continuing liaison between all interested parties, with a view toward developing innovative technologies to increase the use recovered resources. I would like to repeat that sentence: The Department of Commerce would establish a continuing liaison between all interested parties, with a view toward developing innovative technology to increase the use of recovered resources.

By this activity the Department of Commerce would provide close cooperation between producers and users of recovered materials. Other activities we intend to undertake include evaluating the effect of existing and proposed laws and regulations on the net propensity to use recycled resources in order to forecast trends, and to establish and provide a central source within the Federal Government for information and technology transfer concerning the developments of new uses and markets for recovered resources.

My statement has a considerable amount of information about work we have already done on the program. I will not go through that in detail. But I would like to point out one very important element.

In addition to the activities taking place directly at the National Bureau of Standards, whose responsibilities are well-defined in the Solid Waste Disposal Act, the Department of Commerce and the Environmental Protection Agency concluded an interagency agreement on May 30, 1978 meant to minimize the possibility of unnecessary duplication of effort.

The Office of Environmental Affairs within the Office of the Assistant Secretary of Commerce for Science and Technology is moving forward toward convening the First International Conference on Urban Industrial Resource Recovery Parks to be held in Detroit, Mich., on April 17 and 18, 1980. This conference will bring together community and industrial leaders in order to explore the opportunity not only for recovering marketable resources from waste streams but for building an industrial grouping around what is essentially a mine in order to utilize those recovered materials.

Mr. FLORIO. Is that being done in conjunction with the other environmental agencies involved, DOE and EPA?

Mr. BARUCH. Yes; it is a joint activity. I point this out, that it is an international meeting, because as Father Drinan indicated there are 240 installations in Europe, and we feel we have a great deal to learn from the European technology.

Mr. FLORIO. Are they private or public installations?

Mr. BARUCH. They are a mix. Specific activities are very heavily dependent upon the particular country. In addition to these activities, we are planning regional market surveys, analyses and planning aids covering at least four widely spaced geographical regions. Such a step could go far in helping the nation to reduce current environmental burdens created by solid waste disposal while at the same time providing resource conservation through both materials and energy recovery in an economically sound fashion.

At this point I would like to point out that four recent laws give the Department of Commerce, the Environmental Protection Agency, the Department of Energy, and other agencies responsibility for materials and energy conservation and resources: the Resource Conservation and Recovery Act of 1976, (Public Law 94-580); the Department of Energy Organization Act (Public Law 95-91); the Department of Energy Act of 1978—Civilian Applications (Public Law 95-238); and the National Energy Conservation Policy Act (Public Law 95-619).

The directives contained in these laws, as was pointed out, I think, create a need for a federal mechanism to coordinate agencies, programs and activities concerned with materials and/or energy conservation and recovery. Some of the directives to the various Federal agencies in Resource Conservation and Recovery Act and other legislation are overlapping. In most cases, the overlaps are complementary and when properly coordinated would serve to reinforce one another.

Since the Department of Commerce has the responsibility for identifying economic and technical barriers to the recovery and use of waste materials, the Secretary of Commerce has requested me,

as the Assistant Secretary of Commerce for Science and Technology, to attempt to establish an interagency coordinating committee to insure that the developing programs of other agencies will be compatible with and supportive of our department's major objective of fostering the development of the mix of economic incentives which are necessary in order to drive the resource recovery program.

Such an interagency committee will serve as a central point for providing us with advice and recommendations with regard to setting priorities for programs to implement materials recovery, statutes, and policies. Such a mechanism could minimize redundant Federal activities, reduce confusion of State and governmental bodies responsible for resource management—for example, solid waste management—and provide a central source for the allocation of effort within the Federal Government for these activities.

Mr. Chairman, this concludes my formal remarks. I will be happy to answer any questions you may have.

[Mr. Baruch's prepared statement follows:]

STATEMENT OF JORDAN J. BARUCH, SC. D., ASSISTANT SECRETARY FOR SCIENCE AND TECHNOLOGY, DEPARTMENT OF COMMERCE

Our Nation has entered an era that is being characterized by the increasing use of scarce natural resources. It is unlike any peacetime period we have experienced in the past. Currently, we are drawing on virgin resources at an unprecedented rate and many of these are not renewable.

Many of our balance of payment problems are exacerbated by our high demand for imported resources at prices that reflect the increasing international competition for a limited supply of resources.

At the same time, our Nation is generating approximately 150 million tons of post-consumer solid waste per year and well over 50 million tons (dry basis) of potentially hazardous wastes, the disposal of which involves methods that often preclude any future value to the national economy and which indeed may be hazardous to the human environment.

We dump or bury annually about 20 percent of our Nation's requirements for tin and aluminum, about 10 percent of our iron needs, and enough paper which, if recycled, could facilitate the wise husbandry of our timber resources and forest areas for many years to come. In cases where paper and other wastes are mixed, energy can be reclaimed by burning such materials. Chemical wastes, in a number of instances, can be recovered with conventional technology and reused. This process can reduce the burden of disposing of these potentially hazardous materials. We, as a nation, must find alternatives to environmentally unsound disposal methods of the past and learn to conserve our precious resources for the future.

In the Resource Conservation and Recovery Act (RCRA) and other legislation, the Congress has recognized the need to conserve our resources. Resource recovery, recycling and reuse of the materials found in post-consumer wastes can significantly contribute to meeting this need. Most of the materials in post-consumer waste can be separated into marketable commodities, for example, paper, glass, aluminum, iron and steel, copper, zinc, rubber, and, of course, energy. The key, however, to making such separation, recovery and reuse a large scale national effort is to identify and develop markets for these recovered commodities.

There are various methods of resource recovery that can be employed, from source separation to mass burning, to the use of more advanced technology that can further enhance the value of the recovered commodities. No matter which method is selected, however, it must be designed to provide recovered commodities in an acceptable form and at acceptable prices to achieve full marketability.

To insure the marketability of recovered materials, the Resource Conservation and Recovery Act directed the Secretary of Commerce to identify markets for recovered materials, identify economic and technical barriers to the use of such materials and to encourage development of new uses for recovered materials. In light of these responsibilities, the Department of Commerce has identified two major objectives:

First to encourage greater commercialization of technologies leading to increased recovery of resource from wastes which were otherwise destined for disposal.

Second, to provide a framework for fostering the technological advance required to optimize the mix of economic, environmental and commercial factors associated with the disposal and subsequent recovery and/or reuse of resources contained in post-consumer and industrial solid waste.

To achieve these objectives, the Department is developing plans to establish a Department of Commerce Technical Advisory Center (TAC) for resource recovery to form an institutional partnership between all parties of interest; e.g., affected industries, users of recovered commodities, state and local governmental bodies, etc.

A TAC would enable the Department of Commerce to meet its responsibilities under Subtitle E and complement the responsibilities assigned to other agencies under RCRA as the Congress intended. Unless a market exists for recovered materials, the very process of recovery may be a waste, i.e., we will be trading one kind of trash for another. In order to minimize this possibility, the TAC would take into account the fact that the need for raw materials varies greatly from one region of the U.S. to another. The waste stream also varies regionally. Separable commodities in a given area must be matched to market needs in that area in order to devise solid waste management strategies which are both economically and environmentally sound.

Therefore, TAC would interact with industry, state and local governmental bodies and other parties of interest to evaluate and develop priorities for the reuse of recovered resources on the basis of economic and market factors. Thus, we would establish a continuing liaison between all interested parties with a view toward developing innovative technology to increase the use of recovered resources. This activity would provide close cooperation between producers and users of recovered materials. For example, encouraging the recovery of useful chemicals from hazardous materials, could help to ameliorate hazardous materials disposal problems. However, unless a market can be developed for such chemicals, their extraction would be a costly exercise in futility.

Other activities we intend to undertake include:

Evaluating the effect of existing and proposed laws and regulations on the net propensity to use recycled resources and forecast trends and;

Establishing and providing a central source within the Federal government for information and technology transfer concerning development of new uses and markets for recovered resources.

Since the enactment of RCRA, the Department of Commerce has made progress in responding to the Act. Specifically, with respect to the directives of Section 5002 requiring the National Bureau of Standards (NBS) to provide guidelines for specifications for materials recovered from waste, NBS has, with Congressional approval, reprogrammed approximately \$1 million of its own funds. Also, the President's budget for FY 1980 currently before this Congress requests an additional \$2 million to carry out these responsibilities. I consider the NBS activities to be of paramount importance in fulfilling the mandates of Subtitle E of RCRA. I hope that the full amount will be appropriated to provide the necessary resources for a fully responsive program. I have appended to my written statement a detailed overview of NBS activities to date, as well as future plans.

In addition to the NBS activities, the Department of Commerce and the Environmental Protection Agency concluded an interagency agreement on May 30, 1978, to minimize the possibility of unnecessary duplication of effort by either agency with regard to the implementation of RCRA.

Also, the Office of Environmental Affairs which is providing the focus for the coordination of the Department's activities under RCRA is moving forward toward convening the First International Conference on Urban-Industrial Resource Recovery Parks in Detroit, Michigan, on April 17 and 18 of 1980. This conference will be an international gathering of community and industrial leaders to explore the opportunities for urban economic growth through the development of industrial complexes for the recovery and use of materials and energy from municipal solid waste.

We are convening this conference as an international conference, in part, because the conservation of energy and materials is a world problem, and in part, because progress in other parts of the world, particularly Europe, to recover and reuse is more widespread than in this country. We feel other countries' experiences can be of value to the United States.

In addition to these activities, we are considering ways to advise states, municipal governments, and the industrial community to insure that they are afforded full understanding of the array of technical options available for resource conservation and recovery and the full economic benefits that flow therefrom.

These actions will provide the framework for a partnership between commercial and industrial customers for recovered commodities and governmental bodies—local,

regional, and the Federal government. We are planning regional market surveys, analysis and planning aids covering at least four widely-spaced geographical regions. Such a step could go far in helping to reduce current environmental burdens created by solid waste disposal while at the same time providing for resource conservation through energy and materials recovery in an economically sound fashion. Furthermore, in line with this Administration's policy, local and state government would play a major role in partnership with Federal government.

Mr. Chairman, we believe that the Department of Commerce is being responsive to the directives of RCRA. We further believe that the activities which we have underway and/or planned are responsive to the Directives which the Congress assigned to the Secretary of Commerce under Subtitle E of RCRA.

At this point, I would like to point out that four recent laws give the Department of Commerce, EPA, DOE, and other agencies responsibility for materials and energy conservation and recovery:

Resource Conservation and Recovery Act of 1976 (Public Law 94-580.)

Department of Energy Organization Act (Public Law 95-91.)

Department of Energy Act of 1978—Civilian Applications (Public Law 95-238.)

National Energy Conservation Policy Act (Public Law 95-619.)

These laws create a need for a Federal mechanism to coordinate agencies' programs and activities concerned with materials and/or energy conservation and recovery. Some of the directives to the various Federal agencies in RCRA and other legislation are overlapping. In most cases, the overlaps are complementary and, when properly coordinated, would serve to reinforce one another.

Since the Department of Commerce has the responsibility for identifying economic and technical barriers to the recovery and use of waste materials, the Secretary of Commerce has requested me as the Assistant Secretary for Science and Technology to establish an interagency coordinating committee to insure that the developing programs of other agencies will be compatible with and supportive of our Department's major objective of fostering the development of the mix of economic incentives to drive the resource recovery programs.

Such an interagency committee will serve as a central point for providing us with advice and recommendations with regard for setting priorities for programs to implement materials recovery statutes and policies. Such a mechanism would minimize redundant Federal activities, reduce confusion of state and governmental bodies responsible for resources management, e.g., solid waste management, and provide a central source for the allocation of effort within the Federal government for these activities.

Mr. Chairman, that concludes my formal statement. I should be happy to answer any questions you have for me and my staff.

## APPENDIX

### OVERVIEW OF NATIONAL BUREAU OF STANDARDS RESOURCE RECOVERY ACTIVITIES

NBS activities include the following work aimed at providing guidelines for specifications for recovered materials which were destined for waste:

1. Work on constituents of post-consumer-waste glass for possible use in the glass packaging industry. Specifically, the nature of non-melting constituents (stones) was investigated. The object was to determine what stones would or would not dissolve in a glass making tank. The purpose of the investigation is to provide data which will allow more specificity in the current ASTM standard which says that all stones must be excluded. Thus, this work directly supports the NBS mandate to provide specifications for recovered materials. A potential positive outcome would be the use of more waste glass in the glass packaging industry; such use saves natural gas. Thus, not only will more waste glass be employed, but, as a side benefit, energy in the form of natural gas can be saved.

2. Work on the alkali-silica-reaction in light-weight concrete aggregate composed of waste materials such as fly ash and post-consumer waste glass was begun. An understanding of this reaction will govern the proportions of waste materials which can be used in light-weight aggregate construction materials as well as the early strength of concrete structures containing recycled materials such as fly ash or phosphogypsum.

3. A protocol for the use of waste tires was developed and published (note that more than 200 million tires enter the waste stream yearly).

4. A number of workshops on topics such as Federal, state and local procurement with respect to recycled materials have been held. Note that Subtitle F of Public Law 94-580 requires the Federal government and state and local governments to purchase goods with the maximum amount of recycled materials. Other workshops concerned colorants in waste glass, refuse derived fuels, and construction materials.

5. Program personnel have participated with voluntary standards-setting organizations such as ASTM Committee E-38 on Resource Recovery. In fact, NBS personnel hold several offices within this committee.

6. Program personnel have participated in a wide variety of activities meant to carry out the mandates of Public Law 94-580. For example, aid and advice has been given to other agencies of DoC such as OMBE, ITA, and especially the Office of Environmental Affairs.

Specific additional activities which must be carried out in light of the mandates of Public Law 94-580 include:

Conducting public hearings (required by law) prior to the promulgation of guidelines for specifications for recovered materials.

Development of statistically valid methods to sample municipal solid waste and recovered materials to insure that sound sampling procedures are employed in obtaining recovered materials for testing and evaluation.

Nearly 80 percent of municipal solid waste is organic matter which can be reclaimed in a form suitable to provide energy. Characterization of such refuse derived fuels is needed in order to make these fuels more easily marketable. Important properties of concern to potential users are heat value, ash content, composition, particulate emission characteristics and storability. All of these properties will be studied.

Test methods will be developed to evaluate the corrosion characteristics of refuse derived fuel in waterwall incinerators and boilers used to generate power. This fuel is very much different from the fossil fuels now in use, particularly in its corrosive action.

Development and evaluation of necessary test methods will be undertaken for the characterization of the properties of waste glass, which is recoverable but not easily marketable.

Development and evaluation of test methods for waste paper fibers will be undertaken to increase the marketability of this recovered, raw material.

NBS outputs to enable the guidelines produced by the program to be implemented directly by producers and users of recovered energy and materials will probably be Standard Reference Materials and Standard Reference Data for some or all of these commodities.

The Office of Management and Budget has agreed that these tasks need to be carried out. Therefore, NBS/DoC request for direct base funds proposed by the President for fiscal year 1980 will include \$2 million to carry out these tasks as well as others. In addition, the Congress, via Public Law 95-477, has deemed this program important enough to provide a separate authorization for fiscal year 1979 for NBS activities. (The President agreed by signing the Bill into law.)

Continual review of NBS program plans with the probable users of the program outputs has been carried out. Note that the recipients of the program outputs are to be suppliers of recovered materials from waste, such as local government entities, and potential users of these materials, such as an aluminum smelter or electric power utility. In addition, other Federal agencies such as the Department of Defense and the General Services Administration should benefit since some outputs of the NBS program will aid in implementing the Federal procurement provisions of Public Law 94-580. Many groups such as the National Association for Recycling Industries and the American Society for Mechanical Engineers will be able to utilize the outputs in planning and implementing recycling strategies. Environmental groups should also benefit since the BS program represents an effort to aid in the environmentally acceptable disposal of solid waste. The specific activities which need to be carried out have been developed in light of the needs of the user community as well as the specific directives of Public Law 94-580. Note as well that this program plan has been presented before the Congress on April 16, 1977, and was endorsed by the House Subcommittee on Transportation and Commerce.

Mr. FLORIO. Thank you very much.

Mr. Madigan.

Mr. MADIGAN. Mr. Baruch, could you submit for the record of the subcommittee an outline of what you would be able to do in the way of targeting markets for the recovery of materials if you were given various sums of money by the subcommittee—for example, if you were given \$1 million or \$3 million—project outlines?

Mr. BARUCH. Yes; I will, Mr. Madigan. But may I raise a question with regard to that request? Some of the problems of commercializing materials are: What you can commercialize; how you can



commercialize it; and what the markets are depend heavily upon the recovery technology. For example, aluminum recovered from sludge from the resulting cinders from a burnoff is virtually useless except as dead weight. Aluminum recovery or reuse otherwise destined simply for disposal; second, to provide a framework for fostering the technological advance.

So what you can do with the waste depends upon the technology. One of the things we have learned in other areas is that the technology of the production of the recovered materials is very closely tied to the marketing and the specification. The present act is unclear as to how those two get tied together.

We could do what you request under our interpretation of the present act if you just assign to us the task of specifying and marketing, but I don't know that that would be the optimum response.

Mr. MADIGAN. Would you agree that unless something is done by you or someone else, what we are liable to see develop will be various and sundry programs across the country, some dealing with recycling glass, some dealing with recycling something else, where what we would hope to see established will never be established because the economies will never be there. If some people are doing this thing and other people are doing this thing, the total projects will never get there.

Mr. BARUCH. We need an integrated systematic approach to recovering materials from the waste stream. Just glass, just aluminum, just tin here doesn't solve the problem. We need someone to look at that as a systematic task and design and develop and commercialize, and more important, to bring industry into designing, developing and commercializing that material.

Mr. FLORIO. Will the gentleman yield?

Mr. MADIGAN. Sure.

Mr. FLORIO. Just to throw in another variable, because I am convinced that there are really three parts of the process. First, you talk about the market, and that certainly is very important. Second you talk about the various technologies, and then you imply there is need for a systematic approach. I haven't any difficulty with that, but there also has to be an awful lot of intimate involvement in determining what is appropriate for a particular location. That, in fact, is the big problem I see.

When you talk about increasing or developing increased technologies, I must inject that in the last 3 months I have seen more technologies than you can shake a stick at. The difficulty, particularly at the local level, is that the local and county people are overwhelmed with technologies, and don't know what which is appropriate for them. Many of the local people are just looking to get out from under the cost of picking up and disposing of garbage, and are inclined to just accept the best deal that comes along without really having good knowledge of it.

So what I am suggesting is that yes, you are right, there is a need for a systematic approach to the problem, but the system should not in any way imply an overall uniform pattern. It has got to be an approach with a lot of flexibility and a method for giving good technical advice to the local people as to what is appropriate in their particular circumstances.



Mr. BARUCH. That is why we have been developing plans for establishing the Technology Assistance Center. People are overwhelmed. They see conflicting claims. Most city, county, and State governments do not have people on board who can evaluate.

Mr. FLORIO. Are they private or public installations?

Mr. BARUCH. They are a mix. It is very heavily mixed in Debuque, and it is essential there be some place which can evaluate these things and assist the user in the city, and at the same time work with industry so that they can say for this waste stream in this city, this is a reasonable market and there is a way of getting there.

That is what we are trying to do.

Mr. FLORIO. OK.

Mr. MADIGAN. The act is 3 years old, and a summary, I think, of your statement is that you have not done very much. And as I understand your statement, one of the problems is that you did not have what you thought was a clear authorization or a separate authorization, whichever. I understand that through the Science and Technology Committee, you were given \$1 million last year, but that was only 1 year ago.

Mr. BARUCH. \$2 million has been proposed by the President for this coming year.

Mr. MADIGAN. We want to get this moving, and if you want to get it moving, perhaps that is what we should do. But the question I want to ask you right now is do you think that your department, your agency, is the best place for us to be looking for leadership and activity, or do you think that there is someplace else in the Federal Government where this should be transferred?

Mr. BARUCH. Sir, I think many Federal agencies have an inherent interest in this, but my opinion is if we are going to get waste recovery operating efficiently in this United States, it is going to require the intense involvement of the private sector. We are not going to do it by putting up more government-financed plants all over the United States. If we want to involve the private sector in the use of the recovered materials and the processes for recovering those materials, the organization that has the widest contact with the private sector, the most continuous flow of information back and forth with the private sector, the one who works with the private sector as its primary mandate, is the Department of Commerce. It is even in our name.

My opinion is that if you want to accomplish anything through the private sector other than very specific mission-targeted things, my feeling is the Department of Commerce is your best bet, and particularly in this area where you need a wide range of industry. You need people who use aluminum, people who worry about using waste glass for concrete aggregate or for multiple uses. You need a wide range of acquaintanceships with many SIC codes.

I don't see anywhere other than the Department of Commerce that has that expertise, experience, and breadth in the Federal Government.

Mr. MADIGAN. Well, we can agree that during this 3-year period from the authorization that you have and from your regular ongoing appropriations, not a whole lot of attention has been focused on this.

Mr. BARUCH. I don't think we could agree with that in detail. I would be glad to go through some of the items we have done. As a matter of fact, there is an appendix to my prepared statement which I don't know if you received. It is a whole overview of the National Bureau of Standards activities in this area over the past year. It is not insignificant. It hasn't solved the problems.

Mr. FLORIO. If the gentleman would yield, I think the point being made is one we have already made several times. You are talking about specific projects, specific undertakings, and what seems to be needed more than anything else is the coordination of all the parts into a systematic whole, a situation that is lacking. The area is one which is not being applied.

Perhaps 3 years is not a long time in terms of altering the national mentality as to what you do with waste. However, I am not convinced that I see any great direction coming from today's testimony, having read all that is to be presented to the committee, nor do I see from the governmental agencies any sense of appreciation of the need for coordinating for specific involvement in anything other than in an abstract way.

I think that what the committee is interested in is seeing someone come forward to say: We appreciate what has to be done and we are going to work at getting an integrated system presented which will address the various facets of the problem—energy recycling, environmental concerns. It almost seems as if we are involved in a turf war over who wants to step forward because we think that energy is more important than resource recovery, or because we think that the environment should be protected. Those things are all important.

But as a result of the inertia which has come from this turf preservation mentality, nothing is happening. We hope that we are wrong, but we would like to see some vigorous leadership coming from whomever is chosen to be the lead agency.

Mr. BARUCH. I hope that after we have this interagency coordinating committee in operation for a while, we can change your opinion.

Mr. MADIGAN. I do not want to belabor this, Mr. Chairman, but I do want to make a point. I think that what you are saying and what I am saying is that we want to see someone present to us a program for leadership and we want to know what that program is going to involve. We want to know what you think it is going to cost, and then we want to be able to make the judgment as to whether or not we want to go to the House of Representatives and the Senate and ask them to give you the money to get this thing going.

When the Chair speaks of leadership, I think that is what we are looking for. We think this is very important. We thought it was very important in 1976. Frankly, all of us hoped when we did this that by this morning we would be looking at something much more comprehensive and organized than what we have now.

If we are at fault in Congress for not giving enough authority or the right kind of authority or a sufficient amount of money, then we want to correct our deficiencies. But we need some leadership from you and we are looking forward to that.

Thank you, Mr. Chairman.

Mr. FLORIO. Thank you very much. I would go so far as to say that even in this time of austerity, this committee is inclined to be even more generous than is the administration in terms of funding if we can be convinced that the funding would achieve some particular purpose.

Let me ask you a specific question with regard to the Department's involvement in the formulation of a Federal procurement policy to encourage recycling. What has been the Department of Commerce's role in the formulation and increased usage of recycled materials by the Federal Government as called for under the 1976 act?

Mr. BARUCH. We have had no activity in that area so far.

Mr. FLORIO. Well, was it your understanding that you were supposed to have activity?

Mr. BARUCH. The problem we have is that before we can call for an increased activity or before anyone can call for increased activity, they have to know what are the characteristics of whatever they are going to be buying. We have worked on establishing those characteristics over the past year. We have not become actively involved in procurement activity.

Mr. FLORIO. I guess that in this sense EPA is the lead agency, but what you are telling me is that you have had no great involvement in the formulation of the policy that was called for under the 1976 act?

Mr. BARUCH. I would like to point out that while we served with EPA on their interagency committee, the interagency agreement between EPA and the Department of Commerce was not signed until May of 1978, when we started to see how each could contribute most effectively to the overall problem. We are continuing to work on that.

Mr. FLORIO. What has happened since May of 1978?

Mr. BARUCH. We have been working, for example, on the development of waste glass specifications. Waste glass, as you know—

Mr. FLORIO. For Federal procurement purposes?

Mr. BARUCH. For a wide range of things. But one of the areas is for use as an aggregate in building work that is supported by—

Mr. FLORIO. You can appreciate the direction in which I am going, I am sure. If we are trying to encourage markets, the most readily available market over which we have some degree of control are Federal procurement policies. If the Federal Government since 1976 cannot work in a way to enhance its ability to purchase and utilize recycled materials, how do we expect the private sector to in any way encourage that development?

Mr. BARUCH. Let me point out we have had a series of workshops not only for Federal procurement but for Federal, State, and local procurement officials with respect to using recycled materials. Subtitle F of the law requires the Federal Government and State and local governments to purchase goods with the maximum amount of recycled materials. Most of the Federal Government, State and local level governments simply don't know how to do this, so we have had workshops.

Mr. FLORIO. What I am asking is: Since 1976, has there been as the result of the passage of this law, any increase or change in

governmental policy which would in any way expand the Federal market for recycled materials?

Mr. BARUCH. You are asking whether the meetings actually produced a result.

Mr. FLORIO. Yes. Meetings are nice but we hope they produce results.

Mr. BARUCH. That we haven't fully tracked. We have had NBS hold meetings in this area among Federal and State procurement people, but what impact that has had on the proportion of recycled material, I couldn't tell you.

Mr. FLORIO. I see. Let me conclude with one observation. We have talked about energy generation which Father Drinan particularly emphasized. I think it is also important to say that the solid waste program, to the degree it is recycling, is also conserving energy.

Mr. BARUCH. Of course.

Mr. FLORIO. I am sure everyone is aware of the entire question of aluminum. To the degree that you can utilize aluminum, recycled aluminum, you are conserving substantial amounts of energy rather than starting from the virgin bauxite.

We appreciate your comments. We appreciate your contribution this morning, and look forward to working with your agencies and the other agencies involved in trying to make this system work.

Mr. BARUCH. Thank you, Mr. Chairman.

Mr. MADIGAN. Mr. Chairman.

Mr. FLORIO. Mr. Madigan.

Mr. MADIGAN. May I clarify one other thing?

Mr. Baruch, I want to be certain that you understand that I have asked you to submit to us a plan showing what you would do under a maximum situation and how you would go about doing that and how much money that would cost, how much money you think that would cost. That is what I would like to see forthcoming from you.

I would like for the committee to have the advantage of having that information as soon as possible so we have it before us before we go into markup on this bill.

Thank you very much.

[Testimony resumes on p. 238.]

[The following material was received for the record:]



**UNITED STATES DEPARTMENT OF COMMERCE**  
**The Assistant Secretary for Science and Technology**  
 Washington, D.C. 20230  
 (202) 377-3111

May 2, 1979

Honorable James J. Florio  
 Chairman, Subcommittee on  
 Transportation and Commerce  
 Committee on Interstate and  
 Foreign Commerce  
 House of Representatives  
 Washington, D.C. 20515

Dear Mr. Chairman:

At the conclusion of my testimony on March 28, before the House Subcommittee on Transportation and Commerce, you requested that I provide the Subcommittee a plan, for the record, on what the Department of Commerce (DOC) could do if funding was provided for all the Department's responsibilities under the Solid Waste Disposal Act. The enclosed proposed DOC Resource Conservation and Recovery Program Plan is our response to that request. This Program Plan is still in the process of development and has not yet been reviewed by the Office of Management and Budget. Since this plan is still preliminary, we request that it not be included in the record.

The President's budget request to the Congress for fiscal year 1980 contains \$3,122,000 for funding the Department's responsibilities under Section 5002 of the Act, an increase of \$2,000,000. On March 20, 1979, Secretary Kreps transmitted to the Congress a proposed bill to extend for fiscal year 1980 the authorization of appropriations at the funding level requested for the Department's Section 5002 activities. The Department did not request specific monies for our responsibilities under other sections of the Act for fiscal year 1980.

We intend to enlist the advice and cooperation of the industrial community during all phases of the Department's activities under the Act. We look forward to sending you a copy of the complete Program Plan as soon as it is ready for release. Any comments or criticisms you might have concerning this plan would be most welcome.

Thank you for your interest in the Department's activities in resource recovery.

Sincerely,

Jordan J. Baruch

Enclosure

## DEPARTMENT OF COMMERCE

## PROPOSED RESOURCE CONSERVATION AND RECOVERY PROGRAM

The House Subcommittee on Transportation and Commerce requested on March 28, 1979, that the Department of Commerce (DOC) provide a plan of what it could do if funding was provided for all the Department's activities under the Resource Conservation and Recovery Act of 1976 (The Act). The following is in response to that request.

\* \* \* \* \*

## SUMMARY

Since The Act was signed into law, it has become increasingly apparent that the establishment of a mechanism to provide the necessary information support to all the parties that play or will play a role in the recovery and reuse of materials and energy from solid waste would be useful. These parties include:

1. The communities generating solid waste who are facing solid waste management problems.
2. The state and local governmental bodies who have the responsibility of insuring that solid waste disposal practices are environmentally sound.
3. The recycling and basic industries who are the potential customers and users of materials recovered from solid waste.
4. The potential users of energy recovered from solid waste.
5. The resource recovery industries that are the sources of recovery technology, equipment and resource recovery plant construction capabilities.
6. The transportation industry that plays a most important role in collecting and delivering solid waste as well as transporting the recovered products to their markets.

7. The innovative technology firms who will provide improvements to recovery processes, improvements to the products recovered, and the development of new uses for recovered products.
8. The financial community who will be called on to provide the capital for the construction of resource recovery facilities.
9. The Federal Government in its responsibilities under The Act.

The mechanism that DOC would employ to provide the informational support to these parties and effect an interaction and cooperative partnership would be primarily based on a DOC Technical Advisory Center (TAC). TAC, under the leadership and management of DOC, would:

- o Conduct regional surveys and analyses to assess the types of solid wastes being generated and the logistic availability of markets for the materials and energy potentially recoverable from such solid wastes.
- o Provide information concerning the commercial resource recovery technologies currently available, both technically and economically.
- o Determine the needs of the recycling and basic industries for recovered materials and identify the technical and economic barriers that must be overcome to fulfill such needs.
- o Alert and consult with innovative technology firms to the improvements needed to overcome technical and economic barriers to resource recovery processing and recovered products use.
- o Uncover new use needs by industry-wide contacts.
- o Explore the possibility of establishing a mechanism to achieve a moderation of the cyclical market fluctuations of such recovered materials as ferrous metals, aluminum and paper in order to effect increased stability in these markets.

Current efforts of the National Bureau of Standards (NBS) in meeting the directive of Section 5002 of the Solid Waste Disposal Act would be managed in cooperation with the programs and projects of the TAC.

Finally, the DOC is participating in the Environmental Protection Agency's (EPA) establishment of an Interagency Committee to insure that the materials, energy and environmental aspects of resource conservation are taken into account in an optimum way.

The President's budget request for fiscal year 1980 contains \$3,122,000 for NBS activities under Section 5002 of the Solid Waste Disposal Act. Estimates of the cost of implementing additional DOC activities under The Act are dependent upon the nature of the cooperative agreements which would be established with the EPA Technical Assistance Panels and other factors. Incremental resource requirements could range up to \$9,000,000.

DEPARTMENT OF COMMERCE  
PROPOSED RESOURCE CONSERVATION AND  
RECOVERY PROGRAM

Discussion

The Resource Conservation and Recovery Act of 1976 (The Act) directs the Secretary of Commerce to identify markets for recovered materials, identify economic and technical barriers to the use of such materials and to encourage new uses for recovered materials. This mandate is broad and covers many forms of waste including industrial and commercial waste, hazardous wastes (other than nuclear wastes) and municipal wastes.

Needs for new materials as feedstocks for industrial processes, energy production, soil conditioners, etc., vary greatly from one region of the U.S. to another. Waste streams also vary regionally. Thus, materials which can be recovered in a given area must be matched to market needs in that area in order to devise solid waste management strategies which are both economically and environmentally sound.

A 1976 market survey undertaken for the Office of Technology Assessment (OTA) (Summarized in Appendix I) and dealing with only municipal solid waste gave a "tip of the iceberg" view of these regional market imbalances. Therefore, detailed analyses for solid waste management strategies were undertaken in 1976 for two regions: Eastern Massachusetts and a 40,000 square mile area covering parts of Indiana, Ohio, and Kentucky.

These computer based detailed analyses evaluated average total cost to deal with each ton of municipal solid waste including transport costs, processing costs and product revenues in these two regions. Thus, a full market survey of the region involved was carried out as well as an analysis of existing transportation networks and costs. The object was to aid in site selection, marketing, and in selection of appropriate technology at minimum cost and environmental and social burden. (Results of these studies are available on request.)



DOC proposed Resource Recovery and Conservation Program would further extend these regional surveys and analyses.

In order to provide both the data for the regional market analyses and to aid in establishing a partnership between all of the parties of interest in local, state, and regional solid waste management strategies, DOC would establish the DOC Technical Advisory Center (TAC). Additional functions would include the development of guidelines for specifications for a wide variety of recovered materials, and recommending program technologies for upgrading products from recovered materials. The detailed functions and structure for the activities of the TAC are shown in Appendix II.

A serious national question that needs to be resolved is how to dispose of hazardous wastes. According to a GAO Report dated December 19, 1978, adequate capacity is not available to handle the increasing volumes of waste being generated, and public opposition is seriously hindering development of new disposal facilities. Even existing environmentally safe facilities are being jeopardized at a time when the volumes of waste are increasing. How to obtain needed disposal capacity and make sure that funds will be available to correct problems which may occur after site closure are formidable issues.

One approach to solving both the economic and environmental problems of hazardous as well as other wastes is to create new uses for those materials which are thought of as candidates for disposal. For example, rubber from discarded tires can be used to improve the resistance of highways to weathering, or can be burned with fossil fuel to reclaim energy. In the case of hazardous wastes, almost no work has been done to determine whether such materials can be safely converted into useful goods. Proposed EPA regulations issued December 1978 governing the disposal of hazardous wastes are estimated to cause additional costs to the public between \$1.3 and \$2 billion annually; in addition, items such as fly ash could be proscribed as hazardous waste, thus, potentially ending the recycling of 18 million tons of this material per year unless an environmentally sound use market can be found and developed.

Technologies for finding these new uses are unlikely to be developed by the private sector alone. The reason is that individual industries prefer to rely on their existing feed-stock sources. There is very little incentive to carry out research leading to new uses for waste materials when new regulations or action by Federal and/or local governmental bodies could result in large expenditures with little return on investment. The case of fly ash is an example; research directed at blending fly ash with post-consumer waste glass in order to prepare light-weight concrete aggregate thus utilizing two wastes and saving energy while preparing a useful product will be wasted if fly ash is finally judged to be a hazardous waste. Therefore, under The Act DOC has both the mandate and the responsibility to arrange the necessary partnership among the major interest parties or "stakeholders" involved with waste disposal. These stakeholders include state and local governmental bodies, a wide variety of industries and potential users of the recovered commodities as well as potential suppliers of new technology to reclaim useful materials from both hazardous and municipal solid wastes.

The proposed DOC Resource Recovery Program was formulated to deal with these crucial environmental, economic and commercial issues: For example:

1. The DOC Technical Advisory Center (TAC) for Resource Conservation and Recovery would be utilized to establish the institutional partnership between all of the stakeholders.
2. Existing information concerning potential uses for all forms of waste would be compiled.
3. In cooperation with industrial and governmental bodies, economic and environmentally sound uses for recovered materials would be catalogued. For example, useful chemicals may be able to be extracted from hazardous materials, thus, reducing the quantity of hazardous material to be disposed. However, unless a market exists for such chemicals, extracting them would be a waste of time and effort.
4. Once potential uses have been identified, existing technology to carry out the necessary operations would be sought and recommended.

This DOC proposed program would:

- o Provide an innovative spur for the creation of new industries or the expansion of existing industries while at the same time reducing serious environmental burdens.
- o Inform users of recyclable goods that the raw materials they will potentially purchase can meet a given requirement.
- o Provide the Federal Government the means to better comply with Section 6002 of the Solid Waste Disposal Act which calls for the maximum use of recyclables in all items purchased by the Federal Government.
- o Provide a mechanism for DOC to carry out a major portion of its responsibilities under Subtitle E of The Act.

Further details can be found in Appendix III.

#### Interagency Committee

EPA is in the early stages of establishing an Interagency Committee with DOC and DOE to identify overlapping areas of responsibility among executive branch agencies under the directives of the Solid Waste Disposal Act, and other acts, for the purpose of effecting better coordination and minimizing agencies' redundant actions. This Committee is meant to insure that the materials, energy and environmental aspects of resource conservation are taken into account in an optimum way.

#### National Bureau of Standards

Detailed plans for integrating resource conservation technology and National Bureau of Standards (NBS) tasks relating to the functions of TAC as well as meeting the directives of Section 5002 of the Solid Waste Disposal Act are shown in Appendix IV.

Appendix V summarizes the resources required to carry out these DOC proposals.

## APPENDIX I

**Regional Markets for Recovered Resources**

In this appendix, details are presented for the potential marketability of recovered resources in the nine U.S. census regions. See methodology and approach section in this chapter and Working Paper Number One by the Resource Technology Corporation, the primary source, for discussions of the methodology and limitations of the following.

Figures E-1 through E-14 display the regional imbalances between potential production and potential consumer capacity to use each of the energy and material resources which could be recovered from MSW in 1980. Three levels of imbalance are shown: (1) potential regional markets are adequate to consume all potential production, (2) potential markets in adjacent regions are sufficient, and (3) regional and interregional markets are not sufficient due to transportation barriers or to insufficient total national markets.

**Regional Analyses****NEW ENGLAND**

While the potential markets for most material products from MSW are unavailable or limited in New England, there is ample capacity in the Middle Atlantic region to use New England's products. Comparatively few steel remelt markets and no detinning facilities are located in New England, but the ferrous product can probably be economically shipped to markets in the Middle Atlantic region. Nonferrous metal concentrates can probably be marketed to scrap brokers within the region. Although the region has three glass plants, the potential supply of glass cullet will likely exceed existing and projected capacity of these plants to use cullet. Transport costs and the low value of glass cullet render economic shipment to the Middle Atlantic region unlikely. Although there are no markets for aluminum in this region, all of the reclaimed aluminum can be transported to consuming industries in other regions. Mineral aggregates are in excess supply in this region, and it is doubtful whether reclaimed aggregate could be marketed. Pulp and paper mills in this region have a combined capacity to use secondary fiber many times greater than the potentially recoverable quantity in the region.

In New England, an estimated 52 percent of the solid waste generated annually is incinerated. The historical dependence of large cities in this region on steam for heating, coupled with the widespread use of incineration suggests that steam and electric power could be marketed. Steam boilers in this region would also use virtually all of the solid, liquid, or gaseous fuels which could be produced.

**MIDDLE ATLANTIC**

This region, which includes 18 percent of the U.S. population, is highly industrialized and has virtually every industry needed to use energy and materials from

**Figure E-1.—Potential Recovery of Coarse Dry Solid Fuel: in 1980**  
(In millions of tons)

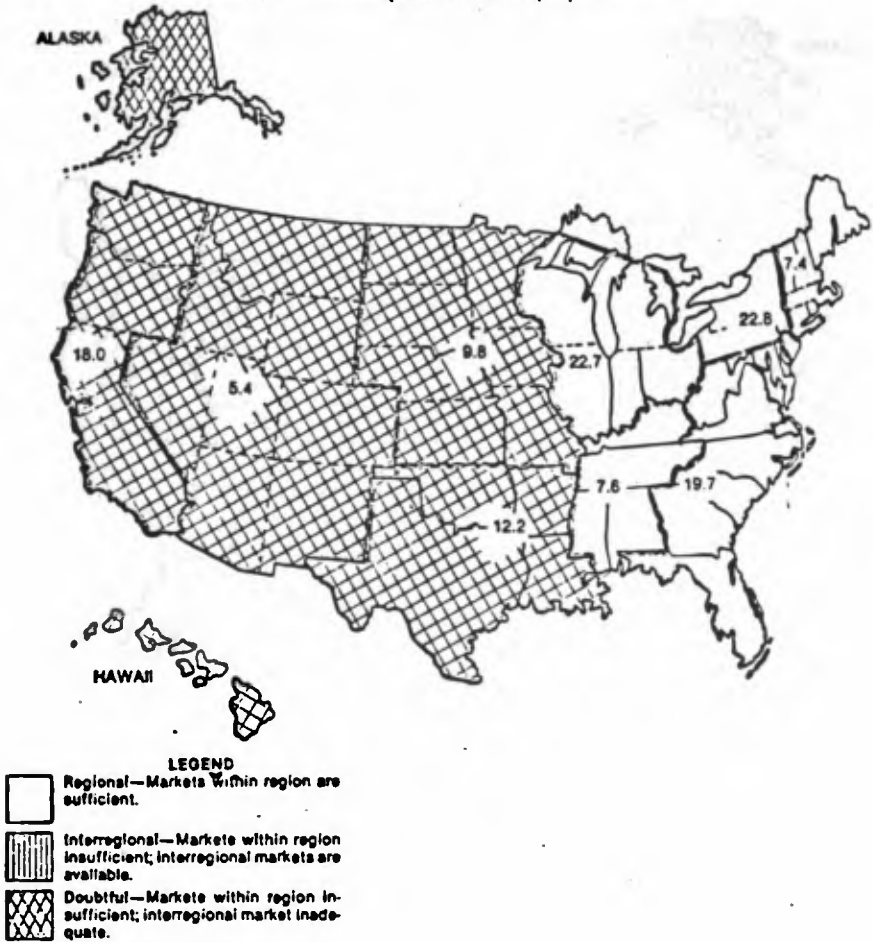


Figure E-2.—Refined Dry Solid Fuel, 1980  
(In millions of tons)



# LEGEND




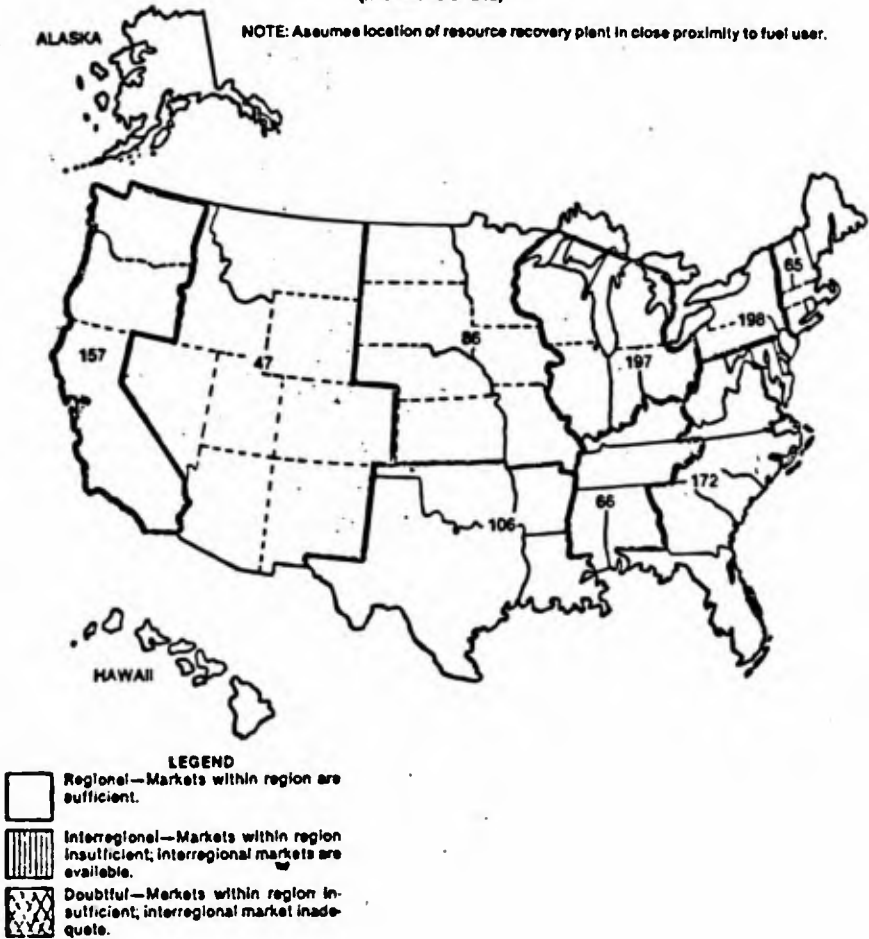
-  Regional—Markets within region are sufficient.
-  Interregional—Markets within region insufficient; interregional markets are available.
-  Doubtful—Markets within region insufficient; interregional market inadequate.

Figure E-3.—Medium-Btu Gas, 1980  
(in trillions of Btu)

NOTE: Assumes location of resource recovery plant in close proximity to fuel user.



**Figure E-4.—Low-Btu Gas, 1980**  
(in trillions of Btu)



**LEGEND**




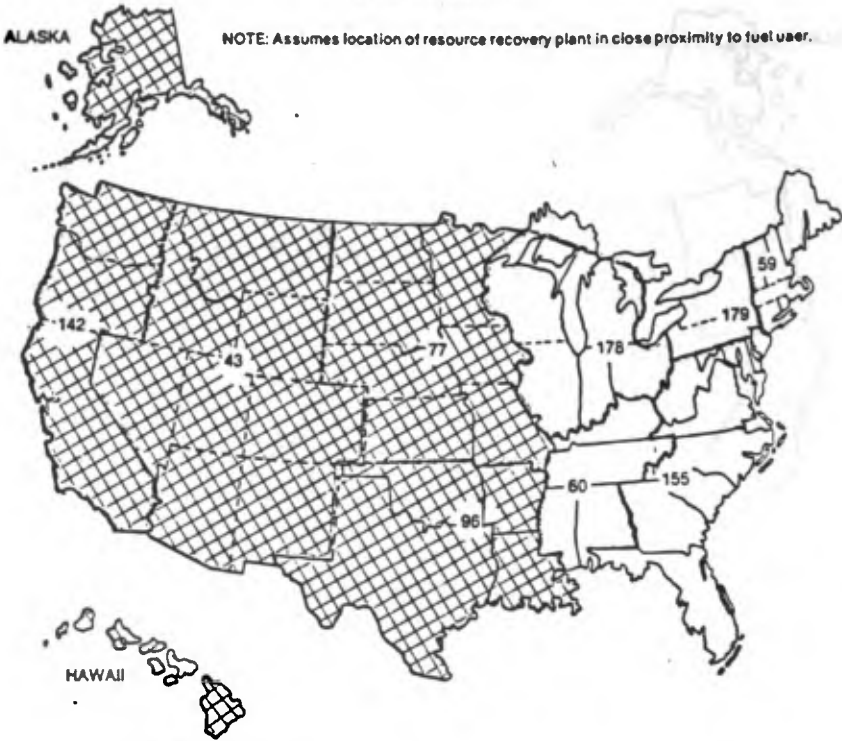
-  Regions—Markets within region are sufficient.
-  Interregional—Markets within region insufficient; interregional markets are available.
-  Doubtful—Markets within region insufficient; interregional market inadequate.



Figure E-5.—Liquid Fuel, 1980  
(In millions of barrels)



**Figure E-6.—Steam, 1980**  
(In billions of lbs.)



**LEGEND**




-  Regional—Markets within region are sufficient.
-  Interregional—Markets within region insufficient; interregional markets are available.
-  Doubtful—Markets within region insufficient; interregional market inadequate.

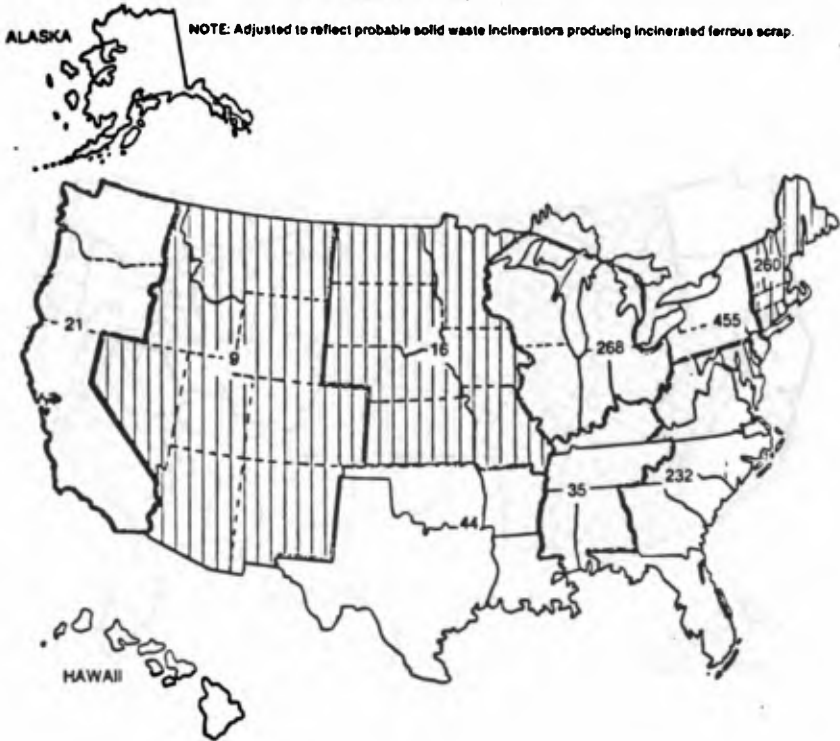
Figure E-7.—Electric Power, 1960  
(In billions of kWh)






Figure E-8.—Unincinerated Ferrous Metals, 1980  
(In thousands of tons)



**Figure E-9.—Incinerated Ferrous Metals, 1980**  
(In thousands of tons)



**LEGEND**

-  Regional—Markets within region are sufficient.
-  Interregional—Markets within region insufficient; interregional markets are available.
-  Doubtful—Markets within region insufficient; interregional market inadequate.

**Figure E-10.—Aluminum, 1980**  
(in thousands of tons)



**LEGEND**




-  Regional—Markets within region are sufficient.
-  Interregional—Markets within region insufficient; interregional markets are available.
-  Doubtful—Markets within region insufficient; interregional market inadequate.

Figure E-11.—Nonferrous Metals Concentrate, 1980  
(In thousands of tons)



**Figure E-12.—Paper Fibers, 1980**  
(In thousands of tons)

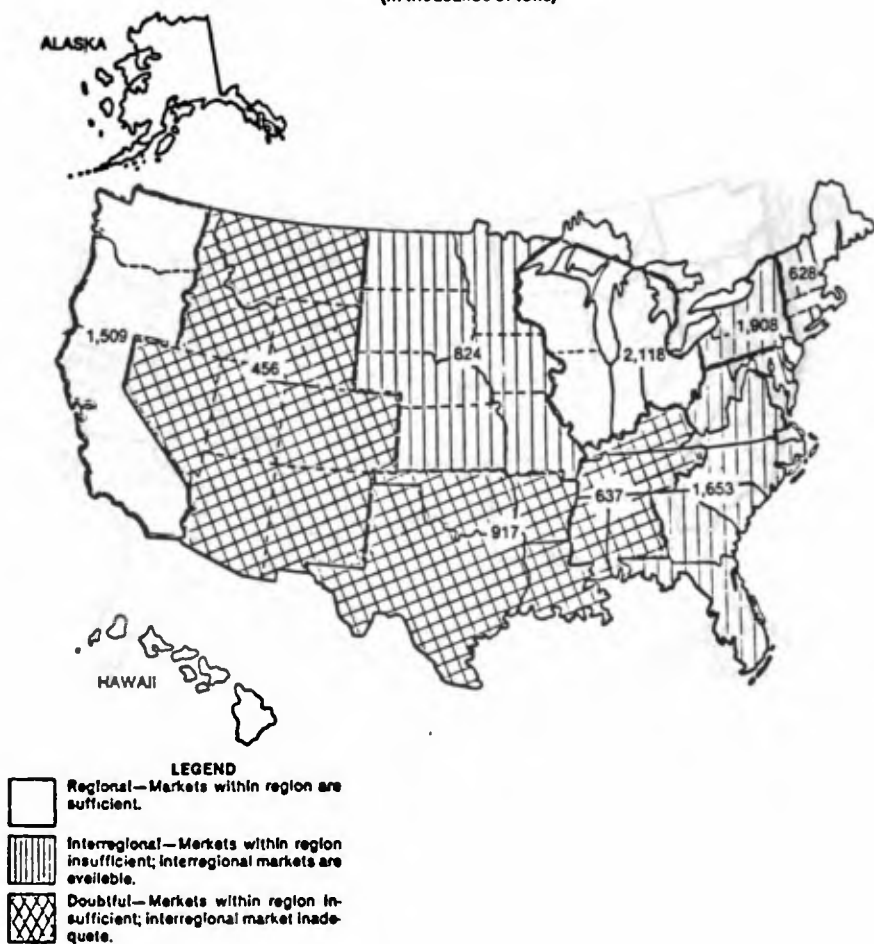







Figure E-13.—Glass, 1990  
(in thousand of tons)



**Figure E-14.—Aggregate, 1980**  
(In thousands of tons)



**LEGEND**

-  Regional—Markets within region are sufficient.
-  Interregional—Markets within region insufficient; interregional markets are available.
-  Doubtful—Markets within region insufficient; interregional market inadequate.

MSW. Their capacity exceeds the potential supply of products from this region as well as adjacent regions. Because of the existence of steel, detinning, aluminum, glass, paper, and scrap metal processing plants, all reclaimed materials, with the exception of aggregate, are believed marketable in this region.

#### EAST NORTH CENTRAL REGION

This region's industrial activity consumes metals, paper fibers, and glass from resource recovery. Its utility and industrial boilers can absorb all the energy products which might be produced; however, for site-specific products such as gas or steam, locational problems may occur. It is likely that future resource recovery systems will incorporate steel and glass recovery and produce fuel supplements, but few aluminum and mixed nonferrous recovery subsystems will be included since small quantities of these materials are contained in this region's MSW.

#### WEST NORTH CENTRAL REGION

Since the West North Central region is predominantly agricultural, its capacity to use supplementary fuels and materials from solid wastes is limited. In nearly all cases, however capacity exists in neighboring States, particularly those in the East North Central region. Only eight steel plants and no tin recovery plants are located in this region and there is some question whether all the potentially reclaimed ferrous metals can be marketed in the region. Substantial excess capacity to use scrap ferrous metals exists in the neighboring East North Central region, particular in the Chicago area. Furthermore, combined markets in this region and in the East North Central region can use all the potentially recoverable aluminum and nonferrous metal concentrates. It is unlikely that the region's three paper mills could use all the paper fiber in its solid waste, although markets in the East North Central region have adequate capacity. The economics of glass waste are at best marginal because only one glass container plant is located here and any excess must be transported interregionally. The aggregate market is undefined, but doubtful. There is insufficient capacity to use all the refuse-derived fuel from the region's solid waste, and it is unlikely that the balance could be economically transported to another region.

#### SOUTH ATLANTIC REGION

This region has sufficient industrial and utility plants to use all the materials and energy from its solid wastes. Electric furnace installations, along with tin recovery and ferroalloy producers can accommodate all ferrous metals reclaimed from the region's MSW. This region includes the largest number of aluminum plants in the Nation, with capacity far exceeding the maximum quantities potentially derived from MSW. About 18 percent of the Nation's scrap metal processing capacity is located in this region and would accommodate all of the region's nonferrous concentrate as well as that of nearby regions. Although capacity to use paper fibers is available, consumption would be constrained because most mills are designed for virgin fiber recovery.

Glass use would be limited by transportation costs to reach cullet markets. Glass aggregate has some potential for sale in this region, particularly in Florida and other south coast States. For energy products, it appears that capacity to use RDF is available; however, technical and economic feasibility must be established at the local level. This region could accommodate all of the liquid and gaseous fuels and electricity producible from resource recovery facilities, while the potential marketability of steam would have to be determined at the local level.

#### EAST SOUTH CENTRAL REGION

There is more than ample capacity in this region to use ferrous, aluminum, nonferrous concentrate, and paper fibers potentially recoverable from MSW. The capacity of glass container manufacturing plants to use cullet is marginal, while the market for glass aggregate, although undeveloped, is potentially attractive. There is sufficient capacity to use potentially recoverable solid, liquid, or gaseous fuels as well as electric power. The capacity to use steam must be established on a project basis.

#### WEST SOUTH CENTRAL REGION

Although this region has sufficient capacity to use most energy and materials potentially reclaimable, transportation costs may rule out economic viability of their recovery. About 60 percent of the population lives in nonmetropolitan areas. The capacities of the region's ferrous metals, aluminum, and nonferrous metals markets far exceed potential supply. Glass plants appear to have sufficient capacity to use the glass cullet from the region's waste, but shipping costs, particularly over long distances in Texas, will limit cullet marketability. The combined capacity of the region's paper mills is not sufficient to accommodate the potentially recoverable paper fiber in the region's waste. It is doubtful that glassy aggregate product could compete with mineral aggregates which are in sufficient supply in the region.

Potential users of RDF and refined dry fuel are limited in the near future to Portland cement plants, sludge incinerators, and biomass boilers. However, a number of coal and lignite-based electric power plants are being planned for the region and they should provide the potential to consume dry solid fuels from MSW in the future. The capacity of existing facilities to consume liquid fuel appears limited in this region. Since this region predominantly uses natural gas as fuel, the capacity to consume medium- or low-Btu gas exceeds potential supply. The sale of steam would be limited for the most part to industrial plants in or near population centers and would not appear likely for most of the region. There is more than sufficient capacity to use electricity from solid waste throughout this region.

#### MOUNTAIN REGION

Figure E-1 through E-14 depict dramatically the limited capacity of the region to consume products potentially reclaimable from MSW. However, since the region con-

tains only 4.2 percent of the Nation's population, the impact of insufficient markets is small. Very few large resource recovery facilities can be economically justified in this region. It would be virtually impossible to reclaim or consume all of the materials and energy products from this region's solid wastes, since shipping distances are economically prohibitive for all but a few products. This region, in total, has one each aluminum, glass, and paper plant and only four steel plants. It has the capacity to absorb only ferrous metals and nonferrous metals concentrates; properly prepared aluminum can probably be marketed in a contiguous region. This region lacks sufficient capacity to absorb paper fibers, glass, or aggregate products, and transportation costs to other regions are prohibitive. Marketability of RDF, refined dry fuel, liquid and gaseous fuels products and steam is limited to the region's four SMSAs and capacity appears doubtful for RDF, refined dry fuel, low-Btu gas and liquid fuel, but good for liquid fuel in the northern States and medium-Btu gas in larger cities. There is sufficient demand for any amount of electric power producible from this region's solid wastes.

#### PACIFIC REGION

Nearly 14 percent of the Nation's population resides in this region; about three quarters of the region's residents are concentrated in urbanized areas. Sixteen of the region's 22 SMSAs are located in California. It is significant that two separate market conditions exist in this region: adequate capacity can be found for most products in Washington, Oregon, and California, while market capacities in Alaska and Hawaii are substantially limited. Excess capacity exists to use ferrous metals, aluminum, paper fiber, and nonferrous metals in the mainland States; sufficient capacity for these products exists for shipments from Alaska and Hawaii. Although the combined capacity of glass plants in the Los Angeles, San Francisco, Seattle, and Portland areas is sufficient to accommodate the potentially reclaimed glass in the region, economic feasibility of glass recovery may not be justifiable in other areas. Glass aggregate would have little, if any, market value and acceptance. The capacity to use solid fuels will be limited unless market development demonstrates their use in Portland cement plants and biomass boilers. Liquid fuel and medium-Btu gas markets could absorb potentially producible products in large cities and, in the case of gas, in locations where production is near consumers. Potential markets for low-Btu gas and steam are limited to populated areas where resource recovery plants are near users. Electricity is highly marketable in this region. It should be noted, however, that electric power from resource recovery will compete with low-cost hydroelectric power in portions of Washington and Oregon.

#### Discussion

The foregoing review of markets for products derivable from MSW suggests the following. Most of the incinerated ferrous metal will be generated and sold in the Northeastern and North Central United States. Nonincinerated steel has a national

distribution, and some interregional sales can be expected. Aluminum recovery in Washington, California, central and coastal Texas, and Florida is most likely to succeed financially. In other regions, depending upon the amount of aluminum beverage cans being used, aluminum recovery may be economic. Mixed nonferrous metals generally will follow the same pattern as aluminum. Glass will be recovered mainly east of the Mississippi, although there are a few glass processing centers in the Pacific region. Aggregate as a glass product is probably weak in most areas of the United States since it has such low dollar value, lacks market exposure, and is competing with sand and gravel. Some form of waste-derived energy, on the other hand, can be marketed virtually everywhere in the United States, particularly in the form of gas, oil, and electricity.

With the exception of the mass incineration systems whose development, particularly in the Northeast is likely to continue, most solid waste facilities east of the Mississippi River will produce refuse derived fuel (RDF) to be used as a supplement in utility and industrial boilers. In some cases RDF may be incinerated directly with heat recovery. In most of the Eastern United States, where aluminum content is low, mechanical aluminum separation may be economically marginal. Glass recovery will probably occur in the Great Lakes area, the Middle Atlantic States and to some degree, in the South Atlantic seaboard, but each case will have to be evaluated individually and will only be economically viable where short haul distances to processing plants (perhaps under 100 miles) are involved. Nonincinerated steel recovery will be employed at almost all nonincineration resource recovery facilities, and, within limitations, incinerator residues will be processed for their steel products.

In most of the great plains area and the mountain region west of the Mississippi River, the main emphasis will probably be on front-end recovery of paper and corrugated board. Ferrous recovery will occur in several areas, but most municipal wastes will be disposed of in sanitary landfills. Urban areas will install processing facilities to produce RDF for utility or industrial boilers. In a few instances, pyrolysis will be considered.

In the Pacific coast region, incineration will be practically nonexistent; emphasis will be placed on pyrolysis and on boilers designed to use RDF with coal. In some sections of the Pacific region, aluminum and glass recovery will be viable. Nonincinerated ferrous recovery will be common throughout the region. In summary, although there will be trends towards certain types of waste processing operations on a regional basis, the total resource recovery operation for the United States will consist of a mosaic of many different processes tailored to meet the individual requirements and market demands of specific localities.

## APPENDIX II

Proposed Establishment of the Department of CommerceTechnical Advisory Center forResource Conservation and Recovery

Public Law 94-580, the Resource Conservation and Recovery Act (The Act), Subtitle E, assigns three major generic responsibilities to the Secretary of Commerce:

- o to encourage greater commercialization of proven resource recovery technology;
- o to develop markets for recovered materials; and
- o to evaluate the commercial feasibility of resource recovery facilities and develop an information base to assist persons in choosing a system.

Additionally, under Subtitle F, the Department of Commerce (DOC) is responsible for assisting in the preparation of guidelines for Federal procurement of recovered materials.

As noted by Secretary Kreps\*, The Act directs this Department to assume the lead role in identifying economic and technical barriers to the recovery and use of waste materials.

Since The Act was signed into law on October 21, 1976, it has become increasingly apparent that the successful implementation of the aforementioned responsibilities requires the establishment of a mechanism to provide the necessary informational support to all parties that play or will play a role in the recovery and reuse of materials and energy from solid waste. These parties include:

1. The communities generating solid waste who are facing solid waste management problems.
2. The state and local governmental bodies who have the responsibility of insuring that solid waste disposal practices are environmentally sound.

\* In testimony by Dr. Jordan J. Baruch before the House Subcommittee on Transportation and Commerce, March 28, 1979.

3. The recycling and basic industries who are the potential customers and users of materials recovered from solid waste.
4. The potential users of energy recovered from solid waste.
5. The resource recovery industries that are the sources of recovery technology, equipment and resource recovery plant construction capabilities.
6. The transportation industry that plays a most important role in collecting and delivering solid waste as well as transporting the recovered products to their markets.
7. The innovative technology firms who will provide improvements to recovery processes, improvements to the products recovered and the development of new uses for recovered products.
8. The financial community who will be called on to provide the capital for the construction of resource recovery facilities.
9. The Federal Government in its responsibilities under The Act.

There are various methods of resource recovery that can be employed, from source separation to mass burning, to the use of more advanced technology that can further enhance the value of the recovered commodities. No matter which method is selected, however, it must be designed to provide recovered materials (and energy) in an acceptable form and at acceptable prices to achieve full marketability.

Experience has shown that unless a partnership can be arranged between all of these interested parties (or "stakeholders"), resource recovery options are almost certain to be discarded (San Francisco Bay Area), delayed (Milwaukee), and/or implemented poorly (Baltimore City).

Local governmental bodies are responsible for solid waste management. Thus, in most instances, these bodies are also responsible for establishing the optimum partnership between all of the stakeholders. There



have been some successes - notably in the States of Wisconsin and California where strong statewide laws exist - and many failures or potential failures. In enacting RCRA, Congress clearly recognized that local governmental bodies want and often need advice and assistance in establishing the necessary partnership and in planning for optimum solid waste management strategies. There are many problems since needs for raw materials vary greatly from one region of the USA to another. The waste stream also varies regionally. Separable commodities in a given area must be matched to market needs in that area in order to devise solid waste management strategies which are both economically and environmentally sound.

DOC, acting through the Technical Advisory Center (TAC), would cooperate with the EPA Technical Assistance Panels created under Subtitle B of The Act, as well as with specific elements of the business community, in order to participate in establishing a partnership between the parties of interest. This partnership is necessary to create the climate for optimum solid waste management strategies to be implemented.

In order to comply with the law, DOC must interact with all or the stakeholders. During these interactions, DOC has been and will be asked to provide advice and to assist in establishing the necessary partnership of interests. For example, DOC personnel have interacted with the stakeholders in Springfield, Missouri (1978); Detroit, Michigan (1976); Danbury, Connecticut (1976); and have been approached for such aid by Newark, New Jersey (1978); and Auburn, Maine (1978), among others.

Representatives of the chemical and petroleum industries met with DOC personnel January 27, 1979, to request aid in dealing with hazardous wastes. DOC personnel have addressed gatherings of state legislators on resource recovery issues in 1976 and 1977. The State of Minnesota has, as a result, requested that DOC provide aid to the State Legislature in assessing solid waste management strategies in the area.

Therefore, with the establishment of the TAC, the DOC will be in a position to:

- o Conduct regional surveys and analyses to assess the types of solid wastes being generated and the logistic availability of markets for the materials and energy potentially recoverable from such solid wastes.

- o Assess the commercial resource recovery technologies currently available both technically and economically, and transfer such assessments although with options for utilization to communities for determining solid waste management strategies and formulating plans.
- o Determine the needs of the recycling and basic industries for recovered materials and establish the technical and economic barriers that must be overcome to fulfill such needs.
- o Alert and consult with innovative technology firms to the improvements needed to overcome any technical and economic barriers to resource recovery processing and recovered product improvement.
- o Uncover new use needs by industry-wide contact.
- o Establish an ongoing partnership between the communities studying resource recovery options and all the stakeholders involved in reaching a decision to implement resource recovery.

The benefits that would be expected from the TAC would be as follows:

- o Provide DOC with direct access to daily problems confronting industry and local governmental entities in resource conservation and recovery.
- o Provide mechanism to deal rationally with parties affected by existing and proposed regulations concerning hazardous wastes. (Note: Industry and the National Governors Association estimate costs of December 18, 1978, hazardous waste proposals of EPA at between \$1.3 and \$2 billion per year.)
- o Provide direct technical and economic backup to DOC Cities Program and President's Urban Policy initiatives.
- o Provide DOC agencies (e.g. Economic Development Administration) with far better technical basis on which to judge requests for grants in the area of resource recovery and conservation.

## APPENDIX III

Proposed Resource Conservation and Recovery Program

Goal: To encourage greater commercialization of technologies leading to increased recovery of resources from wastes which were destined for disposal in response to the Resource Conservation and Recovery Act (The Act).

Objectives:

- o Stimulate development of markets for recovered resources.
- o Promote proven technology.
- o Identify technical and economic barriers to the use of recovered resources.
- o Encourage the development of new uses for recovered resources.
- o Provide information concerning the commercial feasibility of resource recovery methodologies.
- o Provide a forum for the exchange of technical and economic data relating to resource recovery methodologies.

Problem Requiring This Action:

- o Municipal solid waste growing at rate of over 3 percent annually or 6 million additional tons (EPA - 4th Report to Congress 1977).
- o Hazardous waste disposal sites becoming impossible to obtain (GAO Report CED-79-13 of 12/19/78).
- o Waste of scarce and expensive resources such as 1 million tons of aluminum, 10 million tons of steel and 10 thousand tons of tin per year (estimated costs of about \$1 billion for these commodities alone).
- o Unless markets can absorb recovered resources in an economically favorable way, resource recovery is not practical.
- o Lack of innovation in developing new uses for recovered resources inhibits rate at which resource recovery increases.

- o Existing and proposed regulations may be inhibiting resource recovery, recycling and reuse of materials in the waste stream.

#### Proposed Department of Commerce (DOC) Program

1. The proposed Department of Commerce Program would define and deal with the technical, economic and institutional problems associated with the recovery and use of resources from municipal, hazardous, industrial and commercial solid waste. For example, economic trade-offs between reclaiming resources from hazardous waste or finding new disposal methods would be evaluated.
2. Interact with EPA and DOE in establishing an Interagency Committee to identify overlapping areas of responsibility among executive branch agencies under the directives of the Solid Waste Disposal Act, and other acts, for the purpose of effecting better coordination and minimizing agencies' redundant actions. This Committee is meant to insure that the materials, energy and environmental aspects of resource conservation are taken into account in an optimum way.
3. Forecast economic effects on suppliers and on the various agencies of the procurement provisions of Subtitle F of The Act calling for governmental units to purchase maximum amount of recyclables after October 21, 1978. Such forecasting activity is the only way priorities can be set for altering the many thousands of existing specifications.
4. Evaluate and develop priorities for reuse of recovered resources. Economic and environmental factors dictate what is and is not reusable.
5. Evaluate the probable effect of introducing recovered resources into existing local or regional markets. This evaluation is a key issue for market entry. If serious market disruptions are feared, then opposition to resource recovery by local business interests may occur.
6. Explore the possibility of establishing a mechanism to achieve a moderation of the cyclical market fluctuations of such recovered materials as ferrous metals, aluminum and paper in order to effect increased stability in these markets.
7. Evaluate the effect of existing and proposed laws and regulations on the net propensity to use recycled resources and forecast trends.
8. Provide information and technology transfer mechanisms, e.g., International Conference on Recycling Parks.

9. Participate actively in Federal Government cooperative ventures with foreign countries; e.g., First International Conference on Urban-Industrial Resource Recovery Parks in Detroit, Michigan, April 17-18, 1980.

Selected Milestones for FY 81 and FY 82:

- FY 81 Assemble teams
- FY 81 Prepare detailed program plans
- FY 81 Begin economic forecast modeling
- FY 81 Begin data gathering for regional evaluations
- FY 81 Begin interaction with academic community
- FY 82 Complete forecast of procurement provisions of The Act.
- FY 82 Complete forecasts of effect of introducing recovered resources into existing markets

Justification:

1. Improves both economic and social information.
2. Promotes economic growth of cities and states.
3. Conserves valuable resources.
4. Accelerates technological innovation.
5. Complies with direct mandates to Secretary of Commerce contained in The Act.

APPENDIX IVOverview of National Bureau of StandardsResource Recovery Activities

NBS activities include the following work aimed at providing guidelines for specifications for recovered materials which were destined for waste:

1. Work on constituents of post-consumer waste glass for possible use in the glass packaging industry. Specifically, the nature of non-melting constituents (stones) was investigated. The object was to determine what stones would or would not dissolve in a glass making tank. The purpose of the investigation is to provide data which will allow more specificity in the current ASTM standard which says that all stones must be excluded. Thus, this work directly supports the NBS mandate to provide specifications for recovered materials. A potential positive outcome would be the use of more waste glass in the glass packaging industry; such use saves natural gas. Thus, not only will more waste glass be employed, but, as a side benefit, energy in the form of natural gas can be saved.
2. Work on the alkali-silica-reaction in light-weight concrete aggregate composed of waste materials such as fly ash and post-consumer waste glass was begun. An understanding of this reaction will govern the proportions of waste materials which can be used in light-weight aggregate construction materials as well as the early strength of concrete structures containing recycled materials such as fly ash or phosphogypsum.
3. A protocol for the use of waste tires was developed and published (note that more than 200 million tires enter the waste stream yearly).
4. A number of workshops on topics such as Federal, state and local procurement with respect to recycled materials have been held. Note that Subtitle F of the Resource Conservation and Recovery Act (The Act)

requires the Federal Government and state and local governments to purchase goods with the maximum amount of recycled materials. Other workshops concerned colorants in waste glass, refuse derived fuels, and construction materials.

5. Program personnel have participated with voluntary standards-setting organizations such as ASTM Committee E-38 on Resource Recovery. In fact, NBS personnel hold several offices within this committee.
6. Program personnel have participated in a wide variety of activities meant to carry out the mandates of The Act. For example, aid and advice has been given to other agencies of DOC such as OMBE, ITA, and especially the Office of Environmental Affairs.

Specific additional activities which we propose to carry out in light of the mandates of The Act include:

- o Conducting public hearings (required by law) prior to the promulgation of guidelines for specifications for recovered materials.
- o Development of statistically valid methods to sample municipal solid waste and recovered materials to insure that sound sampling procedures are employed in obtaining recovered materials for testing and evaluation.
- o Nearly 80 percent of municipal solid waste is organic matter which can be reclaimed in a form suitable to provide energy. Characterization of such refuse derived fuels is needed in order to make these fuels more easily marketable. Important properties of concern to potential users are heat value, ash content, composition, particulate emission characteristics and storability. All of these properties will be studied.
- o Test methods will be developed to evaluate the corrosion characteristics of refuse derived fuel in waterwall incinerators and boilers used to generate power. This fuel is very much different from fossil fuels now in use, particularly in its corrosive action.
- o Development and evaluation of necessary test methods will be undertaken for the characterization of the properties of waste glass, which is recoverable but not easily marketable.
- o Development and evaluation of test methods for waste paper fibers will be undertaken to increase the marketability of this recovered, raw material.

- o NBS outputs to enable the guidelines produced by the program to be implemented directly by producers and users of recovered energy and materials will probably be Standard Reference Materials and Standard Reference Data for some or all of these commodities.

The Office of Management and Budget has agreed that these tasks need to be carried out. Therefore, NBS/DOC request for funds requested by the President for fiscal year 1980 will include an increase of \$2 million to carry out these tasks as well as others.

Continual review of NBS program plans with the probable users of the program outputs has been carried out. Note that the recipients of the program outputs are to be suppliers of recovered materials from waste, such as local government entities, and potential users of these materials, such as an aluminum smelter or electric power utility. In addition, other Federal agencies such as the Department of Defense and the General Services Administration should benefit since some outputs of the NBS program will aid in implementing the Federal procurement provisions of The Act. Many groups such as the National Association for Recycling Industries and the American Society for Mechanical Engineers will be able to utilize the outputs in planning and implementing recycling strategies. Environmental groups should also benefit since the NBS program represents an effort to aid in the environmentally acceptable disposal of solid waste. The specific activities which need to be carried out have been developed in light of the needs of the user community as well as the specific directives of The Act. Note as well that this program plan has been presented before the Congress on April 16, 1977

#### NBS Involvement with Development of Test Methods and Standards for Hazardous Waste Characterization

The American Society for Testing and Materials (ASTM) has in process a laboratory investigation of proposed leachate extraction procedures. These extraction procedures are recommended in EPA proposed regulations governing hazardous waste and



issued December 18, 1978. ASTM disagrees that the extraction procedure proposed is satisfactory. NBS personnel are serving on a steering committee which will determine appropriate methods to test the proposed extraction procedure. In all likelihood, NBS statisticians and analytical chemists will play a strong role in developing test methods and protocols for appropriate extraction procedures.

In addition, the Environmental Protection Agency has requested NBS aid under the Interagency Agreement signed by the Administrator of EPA and the Secretary of Commerce. This aid is envisioned to take the form of development and preparation of standard reference materials for potentially hazardous waste leachates. These standard reference materials will enable both the regulator and the waste operator or generator to demonstrate compliance with whatever regulations are finally adopted.

#### FEDERAL PROCUREMENT EFFORTS

1. Identify the product that public purchasing officials feel would be candidates for recycled content.
2. Pick most likely candidates for further attention based on volume potential and impact on recycling.
3. Collect purchase specifications and all test methods and standards cited in the purchase specification.
4. Examine all information collected on each product for any direct or indirect statements, test methods, standards and performance criteria that may exclude a product containing recycled or recovered material.
5. Once identified, the exclusionary clauses can be examined for relevance to the product, its use, specific performance and the desirability for substitution of a recycled component or material for a virgin one.
6. Develop new purchase specifications for use by Federal, State and local purchasing officials. This will be done in coordination with the industries and suppliers that will be involved as well as the final purchasers of the product to insure that the "new" product meets or exceeds the performance of the "old" product.

It is conceivable that somewhere around steps 4 and 5 some new test method, standard, performance measure, etc., may be needed before a new purchase specification can be prepared. This additional work must be planned for at the outset so the process leading to the actual buy will not stop.

## APPENDIX V

PROPOSED RESOURCE CONSERVATION AND  
RECOVERY PROGRAM

## ESTIMATE OF COSTS

The President's budget request for fiscal year 1980 contains \$3,122,000 for NBS activities under Section 5002 of the Solid Waste Disposal Act.

Estimates of the cost of implementing additional DOC activities under this Act are dependent upon the nature of the cooperative agreements which would be established with the EPA Technical Assistance Panels and other factors. Incremental resource requirements could range up to \$9,000,000.

Mr. FLORIO. As our next witness, we are happy to welcome again today Mr. Steffen Plehn, Deputy Assistant Administrator for the Office of Solid Waste of EPA.

As indicated with previous witnesses, your statement will be made a part of the record in its entirety [see p. 44]. We ask you to proceed in summary fashion.

## STATEMENT OF STEFFEN PLEHN, DEPUTY ASSISTANT ADMINISTRATOR FOR THE OFFICE OF SOLID WASTE, ENVIRONMENTAL PROTECTION AGENCY

Mr. PLEHN. Thank you very much, Mr. Chairman.

I am very glad to be here and I am very glad to meet you, Mr. Madigan.

If it is all right, I will just say a few words about resource recovery and conservation. This is an area that is of great importance to me personally and to EPA. We cover a lot of this in our statement, but I would just like to say a few words.

EPA was launched by this committee into this area in a very heavy way beginning in the early 1970's. At that time we were given an assignment to run a demonstration program to take a number of resource recovery technologies which at that time were at the pilot scale level and demonstrate them at commercial scale. I think that program was really quite successful.

Under it we demonstrated at St. Louis that refuse dry fuel could be made from waste and could be coincinerated with coal in the utility boiler. We demonstrated in Franklin, Ohio, that technology could be taken from the pulp and paper industry and used to separate wastes and have them then be used as materials and for energy. We demonstrated at Marblehead and Somerville, Mass., that separate collection of glass and paper and metal could be effective and could be done economically, in the case of Marblehead, and with some problems in the case of the other community. We demonstrated at Baltimore and San Diego that the pyrolysis technology still has a way to go.

That role, with the completion of that program, has really shifted to the Department of Energy. That is where resources for that kind of large-scale demonstration can be secured in the Government in these days. Our orientation has shifted to one of assisting communities, both with financial help and with technical assistance and other support, in making what is a very difficult transition from land disposal to resource recovery.

There are basically three problems, potential obstacles to the widespread implementation of resource recovery in this country as we see it. The first is the technological obstacle: Is the technology there? I think it is generally agreed that there are now two technologies that are fully proven. One is the waterwall combustion technology, which has been heavily utilized in Europe and Japan and is increasingly being employed in this country. The second technology that is clearly here is the modular incinerator approach.

There are factory-fabricated incineration units which can be deployed in various sizes to combust garbage and create energy for uses of shopping centers, factories and whatever.

A third big technology area is the refuse dry fuel, and there are 8 to 10 plants in this country either now in operation or shakedown or construction. There are still minor problems in those plants that are in the process of getting ironed out. So, while one cannot say that that technology is proven at the moment, I think it is clear that it will shortly be judged to be proven.

A second obstacle is economic: Is it cost effective for a community to manage its waste with a resource recovery approach as opposed to a landfill approach? I think the answer to that is that in those parts of the country where the costs of land disposal are above average, and where the project has been carefully planned so that the markets are there and the garbage is there and the technology is there, that these plants can be financed through conventional financial circles.

The final obstacle is the institutional obstacle, and this is what you were referring to earlier, I think, Mr. Chairman. It is our judgment that that is the most difficult problem that the Nation faces in making significant progress. One has to recognize that the planning and development of a resource recovery system involves a very complex set of planning and procuring steps. The community has to assure that it has a sufficient waste supply to support the plant, and in some cases that requires the changing of laws.

They have to have relationships with all of the communities that would be participating in the effort. They have to understand the

technologies that they want to consider when they issue a request for a proposal. They have to identify a market, primarily an energy market. In any end of the waste stream system, the energy market and the tipping fee are the primary source of revenues. The materials revenues can be important, but they are less important.

They often have to change their procurement laws so they are in a position in which they can negotiate with potential vendors of systems and are not forced into taking the lowest bid. And they have to work with the financial community to be sure that the program is packaged properly and organized properly so that bonding can be secured.

So, as I say, our evidence had been that there were a lot of communities that had either started down the road and gotten frustrated and thrown up their hands and stopped, or that had gotten down the road and found they had made some mistakes, in which case they either had to go ahead with a system which had a problem, or not.

We now have in place a five-part program which we think will be really very helpful in assisting communities to get through these problems. Let me just quickly tick through these parts.

The first part is the program of grants to communities, which was announced by the President in his urban message last March. This is money to go to communities to finance them to provide one or two full-time staff members and the technical and other consultant support they require to really carry this process through. In 11 months we developed a solicitation and received 207 applications.

We have sorted that out and selected 68 communities for grants. I want to say here we did not in doing this try to encourage cities to go out and hire consultants to put together fancy brochures in their grant applications. What we asked for was objective data by which we could judge whether the community had the preconditions in place which would assure that resource recovery could be successfully implemented in that community.

We were concerned in knowing how much landfill capacity have you got left, how much is it costing you, how far have you got to take your waste to landfill it, and what kind of environmental problems have you got with your landfill. We wanted to see if they had a problem, because it is only when a community really has a problem that it commits itself to moving ahead here.

We also were concerned with the kind of political and organizational commitment of the community, to what extent the city and suburbs were together on this and committed to working together.

And, as I say, it was on the basis of that kind of data that we made our selections of these 68 communities. We are now out with each of those communities, sitting down with them with experts, and saying let's look at your specific problem; let's figure out precisely what it is you need to do; let's work up a budget for your community; let's work up some milestones, some steps that have to be completed.

We are in that process, and once that is done we will be making these grants to the community. That is the first piece. The second piece is the technical assistance panels program which this committee authorized under section 28003 of the act. Under that, we have

a variety of expert resources available to assist communities in resource recovery and other solid waste management issues. Each of our regional offices now has a full complement of consultant assistants available to assist communities.

We also have our peermatch arrangements with seven public interest groups, such as the American Public Works Association, National Governors Association, International City Managers Association, which lets us bring an expert from one part of the country to the other part to help the second community solve a problem which the first community is expert on.

We have had 320, I believe, requests for assistance under that program. Of those, 43 percent have been in the resource recovery area, and we plan to make resources from the TA Panel program available to each one of the 68 communities as they work their way through this program. So they will have those experts at their right hand guiding them every step of the way.

The other three pieces in our program are our resource recovery seminars. You, Mr. Chairman, attended one of those in Camden last December. These are 2-day programs. We have had 1,500 people attend about 15 of these that we have given over the last 2 years. Primarily these are city managers, county commissioners and others who want to move into this. In 2 days, they learn where resource recovery is at, what problems they have if they want to move ahead, and we have had extremely good reception on that program.

The fourth piece is our evaluation program, in which we go out and collect detailed information on the economics, the technical reliability and environmental performance of existing commercial resource recovery systems, and we make that available to the consulting community, to the industrial community and to communities who are procuring systems so that they are up to date on that.

Finally, under the State, our assignment to support the development of State plans, we are encouraging the development at the State level of a resource recovery capability which can work on problems of changing laws at the State level where that is required. They can work on identifying markets within the State and otherwise provide assistance to the community.

There are three more points I want to make and then I will stop. One is I don't want you to lose sight of the fact that we are working aggressively also in the source separation area. We believe, as you said, that you save a higher value product and you save more energy if you recover paper and other materials at the front end before you go to get the energy. We have encouraged communities to come in to us for source separation projects.

I think 7 or 8 of the 68 are planning to go that way, and we are going to be requiring or working with each of the other communities to see if they cannot build a source separation component into their planning in addition to anything they may do in the way of energy recovery at the end of the road.

I would also like to say that there clearly have been problems between the three Federal agencies with roles in resource recovery, but I think that we are moving substantially to resolve those.

Mr. Baruch mentioned the agreement which was signed between EPA and the Department of Commerce in May of 1978. We also have completed and are just now getting signatures on an inter-agency agreement, a memorandum of understanding between ourselves and the Department of Energy. In that agreement we have defined distinct but complementary roles.

Very simply, the Department of Energy is going to be relying on us for the aspects of the program relating to community planning and procurement, and they are going to be relying on us to find them communities where they will be able to do the kind of D programs which they are assigned under their statute and for which they receive resources.

We are going to make available to each of the communities we have in our program information about DOE's D objectives. They, in turn, will consider that as one alternative in their planning, along with the other alternatives offered by the private sector. If they decide that they are interested in the DOE opportunities and if the DOE decides that that community is an appropriate place for the kind of demonstration they have in mind, they will then get together and the management of the project in that community will shift from EPA to the Department of Energy.

Just finally, Father Drinan referred to the GAO report which was issued about 3 weeks ago. I have sent a letter to the GAO which, with your permission, I would like to make a part of the record, in which we point out the fact that we feel that a lot of the information in that report is somewhat out of date. That report does not mention our program or the President's urban message. It does not really mention the Technical Assistance Panel's association and a number of other things that are under way.

I think we would agree with the general thrust of the GAO report, but we were concerned that in representing the program of EPA, it was not up to date and fully accurate.

Thank you, Mr. Chairman.

Mr. FLORIO. Mr. Madigan.

Mr. MADIGAN. Mr. Plehn, you come to the subcommittee highly recommended. Everything that we have been told, or at least that I have been told about you has been very complimentary, and I personally am very happy that you are going to be more responsible in this area, or perhaps I should say have more responsibilities in this area.

I would like to ask you a question that relates in an indirect way. The largest employer in the State of Illinois has been trying to locate a place to build a new plant. They have looked at 20 different sites in the Midwest, and they don't believe that they can go ahead with any of those sites because of what they perceive to be the probable State implementation plans that are going to be forthcoming under the 1977 Clean Air Act amendments.

It seems to me that if it is becoming so difficult to locate a manufacturing plant, that it is also going to be pretty difficult to locate a waste disposal plant. Do you have any thoughts this morning on whether or not site selection for waste disposal plants is going to be as difficult as I think it is going to be?

Mr. PLEHN. Mr. Chairman, the problem of siting a facility for waste disposal is always a difficult problem, and there is a section

of our prepared statement in which we discuss that. I think it is particularly a problem with facilities, for instance, for the management of hazardous waste, but it is equally a problem in terms of citizen opposition for resource recovery plants.

As far as your concerns about air pollution, as you can understand, I am not fully current on EPA policies entirely in that area. I do know that in the guidance which is provided for the implementation of the offset provisions as set forth in that act, that there has been a particular approach taken toward resource recovery plants which produce energy which attempt to limit the obstacles which that regulation might put in the place of that act.

I would be glad to provide for the record a more extended description of that if you would like.

Mr. MADIGAN. I would appreciate that.

[Testimony resumes on p. 258.]

[The following material was received for the record:]



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

APR 11 1979

OFFICE OF WATER AND  
HAZARDOUS MATERIALS

Honorable James J. Florio  
Chairman  
Subcommittee on Transportation  
and Commerce  
Committee on Interstate and  
Foreign Commerce  
House of Representatives  
Washington, D.C. 20515

Dear Mr. Chairman:

At the hearing on Wednesday on resource recovery you indicated interest in an analysis we have done on financing approaches to resource recovery plants. I promised to provide this analysis which we believe substantiates our conviction that well conceived projects planned under the Urban Policy Program can and will be financed without Federal subsidies.

Enclosed is a table which presents the method of financing for 22 commercial resource recovery facilities now operating or under construction. As the table indicates, all of these projects have received financing through the traditional capital markets. A variety of financing approaches have been employed, including municipal general obligation bonds, public authority (project supported) revenue bonds, industrial development revenue bonds, and corporate debt or equity financing. In some instances, innovative application of revenue bond financing has provided for "lease-back" arrangements which incorporate the dual benefits of tax exempt interest rates and private ownership for tax purposes.

We feel that the investment banking community has responded to the demand for resource recovery financing in an extremely effective manner. We are aware of no sound project which has not received financing.



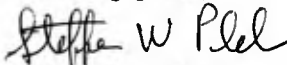
The table reflects a limited amount of State and Federal involvement. Two projects involve some State grant money which was provided as a part of an incentive program to accelerate resource recovery in the State. Partial Federal funding for two projects shown derives from innovative or demonstration technology support for a part of the project.

As you may be aware, the Energy Tax Act of 1978 (P.L. 95-618) provides for an incremental 10 percent investment tax credit for certain recycling facilities, including those burning waste to produce energy. All of the 22 facilities listed in the table were financed prior to this legislation. However, in the future, this new tax credit should encourage financing of facilities through private ownership approaches which take advantage of these tax benefits. It should also reduce the net cost of recovery facilities.

Resource recovery economics are already attractive to many communities. Rising energy costs and the availability of the new investment tax credits should have a very positive impact on future resource recovery economics. At the same time, new RCRA regulations directed at protecting public health and the environment will in many communities have the effect of increasing land disposal costs. Consequently, we believe that a growing number of communities will find resource recovery to be an economically attractive solid waste management alternative.

Our Urban Policy planning grant program was based on the premise that sound projects can and will be financed without new Federal subsidies. We think that the experience to date strongly supports that premise, and we foresee no shortage of capital available for such projects in the foreseeable future.

Sincerely yours,



Steffen W. Plehn  
Deputy Assistant Administrator  
for Solid Waste

Enclosure

# FINANCING APPROACHES FOR RESOURCE RECOVERY PLANTS\*

## A. Plants In Operation

<u>Location</u>	<u>Type/Major Product</u>	<u>Financing Approach</u>
Braintree, MA	240 TPD. Mass burning waterwall combustion: steam for industrial plant.	Municipal general obligation bonds.
Nashville, TN	400 TPD. Mass burning waterwall combustion: steam for downtown heating/cooling.	Pollution control revenue bond.
Saugus, MA	1,200 TPD. Mass burning waterwall combustion: steam for industrial plant.	80% industrial revenue bonds; 20% equity by owner/operator.
Blytheville, AR	50 TPD. Modular incinerator: steam for industrial plant.	Municipal general obligation bonds.
Crossville, TN	60 TPD. Modular incinerator: steam for industrial plant.	Private financing by owner/operator.
Groveton, NH	30 TPD. Modular incinerator: steam for industrial plant.	Private financing by owner/operator.
North Little Rock, AR	100 TPD. Modular incinerator: steam for industrial plant.	Project revenue bonds.
Siloam Springs, AR	20 TPD. Modular incinerator: steam for industrial plant.	Municipal funds (non-debt).
Ames, IA	170 TPD. RDF/supplemental fuel for municipal electric utility.	Municipal general obligation bonds.

\*Includes full scale plants designed to recover energy or materials for sale. Does not include demonstration facilities or facilities that use the energy produced in-house. Types of systems and financing approaches are defined at the end of the Table.

<u>Location</u>	<u>Type/Major Product</u>	<u>Financing Approach</u>
Milwaukee, WI	1,200 TPD. RDF/supplemental fuel for investor owned electric utility.	Private financing by owner/operator.
Altoona, PA	30 TPD. Composting.	Private financing by owner/operator.
<u>B. Plants In Start-Up</u>		
Chicago, IL	1,000 TPD. RDF/supplemental fuel for investor owned electric utility.	Municipal general obligation bonds.
Hempstead, NY	2,000 TPD. Processed waste water-wall combustion: steam for investor owned utility for electric generation.	57% industrial development revenue bonds; 43% private financing (33% equity, 10% debt).
Lane County, OR	500 TPD. RDF/supplemental fuel for an institution.	Municipal general obligation bonds.
Salem, VA	100 TPD. Modular incinerator: steam for industrial plant.	85% municipal general obligation bonds; 15% Federal grant.
<u>C. Plants Under Construction</u>		
Akron, OH	1,000 TPD. Processed waste water-wall combustion: retail steam for heating, cooling, industrial processes.	Project revenue bonds.
Albany, NY	750 TPD. Processed waste waterwall combustion: steam for heating and cooling.	50% municipal general obligation bonds; 50% State grant.
Oade County, FL	3,000 TPD. Processed waste water-wall combustion: steam for investor owned utility for electric generation.	83% State general obligation funds loaned to County under terms similar to revenue bond financing; 12% private financing; 5% municipal general obligation bonds.

B. Financing Approaches

1. Municipal General Obligation Bonds -- Bonds backed by the full faith and credit of the issuing municipality; tax exempt.
2. Municipal Project Revenue Bonds -- Bonds backed by the revenues to be produced by the project, usually tipping fees and product sales. May be issued by a municipal government or special public authority. Tax exempt.
3. Industrial Development Revenue Bonds -- Project revenue bonds issued by a public entity on behalf of a private company. Backed by both project revenues and corporate guarantees. Tax exempt.
4. Private Debt or Equity Financing -- Financing by a private company. May include equity financing or corporate debt financing (corporate "general obligation" bonds).



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

12 APR 1979

OFFICE OF WATER AND  
HAZARDOUS MATERIALS

Congressman James L. Florio  
Chairman  
Subcommittee on Transportation  
and Commerce  
Committee of Interstate  
and Foreign Commerce  
Washington, D.C. 20515

Dear Mr. Chairman:

At your recent hearings on RCRA reauthorization you raised a question regarding the impact of the Clean Air Act on resource recovery implementation. You indicated a very realistic concern that tougher requirements on air quality could significantly impact on the rate of resource recovery implementation.

The enclosed analysis addresses this issue. I think you will see that the Clean Air Act makes resource recovery implementation more difficult, time consuming and costly, but that it is not preventing facility construction. Furthermore, technology is available to control emissions to all existing standards.

EPA has taken an important step to ease the impact of the Clean Air Act on resource recovery facilities which burn municipal solid waste. Such facilities have been exempted from the difficult requirement to obtain emission "offsets" in areas not attaining National Ambient Air Quality Standards.

Please advise me if you desire additional information on this matter.

Sincerely,

A handwritten signature in dark ink, appearing to read "Steffen W. Plehn".

Steffen W. Plehn  
Deputy Assistant Administrator  
for Solid Waste (WH-562)

Enclosure

IMPACT OF THE CLEAN AIR ACT  
ON RESOURCE RECOVERY SYSTEM IMPLEMENTATION

The Clean Air Act (95-11) to the best of our knowledge has not prevented the implementation of any resource recovery facility. However, provisions of the Act do add additional costs and processing time for permit issuance.

The Act itself and the regulations promulgated by the Environmental Protection Agency contain requirements that all new sources must meet prior to construction. For resource recovery facilities, these requirements can be met with available technology without prohibitive cost increases. However, the administrative requirements of the permitting agencies are complex and thus create time demands and uncertainties.

EPA is taking all reasonable steps within its authority to interpret the Act in such a way that resource recovery implementation is not restricted. The Agency has made an important exemption for resource recovery from the "offsets" required in "non-attainment" areas. This removed the most critical potential restriction to construction of resource recovery facilities.

Key Clean Air Act Provisions Affecting Resource Recovery

In order to construct any new facility over a minimum size, it is necessary to submit a "New Source Review Application" to obtain a permit. Requirements for the permit depend on whether the proposed site is in an "attainment" area or a "non-attainment" area, in reference to National Ambient Air Quality Standards (NAAQS). In either case, assessments must be made on air quality at the proposed site and the impact of the proposed new sources.

In an attainment area, the regulations are designed for Prevention of Significant Deterioration (PSD), which means that the proposed facility must not degrade the quality of the ambient air by more than a specified amount. This may require emission limitations beyond Best Available Control Technology as defined below. For non-attainment areas a facility

cannot be constructed unless emissions from existing sources can be reduced to more than offset the new emissions.

These Federal requirements are internalized in State Implementation Plans (SIPS) so that States can administer the permit program and bring their jurisdictions into compliance with NAAQS.

The CAA also specifies that Best Available Control Technology (BACT) be used on any new major source in an "attainment" area. BACT is determined on a case-by-case basis considering several factors including economics. For those "non-attainment" areas where the offset policy applies, a facility must meet Lowest Achievable Emission Rate (LAER). LAER is the lowest emission rate allowed or achieved anywhere without regard to cost or energy use. In either case, resource recovery facilities have to apply significantly greater emissions control than in the past.

#### Technology to Control Air Emissions

The emissions control technology utilized for facilities burning solid waste is an electrostatic precipitator (ESP). An ESP removes particulates from the airstream prior to venting to the atmosphere.

ESP technology is proven and reliable. Any of the current particulate standards resulting from the CAA for resource recovery can be met with an ESP, though costs obviously increase as allowable emissions are lowered. Thus, costs for meeting stringent standards such as those dictated by BACT and LAER increase net resource recovery costs, but usually the increase is not prohibitive.

#### Major CAA Issues for Resource Recovery Facilities

The most significant constraint to construction of resource recovery facilities in the CAA is the emission offset requirement relating to "non-attainment" areas. Under the emission offset policy, in order to construct a new emission source above a certain size, emissions must be reduced from existing sources in an amount greater than the new source emissions.

EPA realized that this would have effectively prevented implementation of resource recovery in many areas of the country. Consequently, EPA's Emission

Offset Interpretative Ruling (40 CFR Part 51) provides an exemption from this requirement for resource recovery facilities. This exemption from obtaining offsets is a key to continued resource recovery implementation, and is justified in EPA's view by the attendant environmental and conservation benefits of resource recovery. The applicant still is required to make the best possible effort to obtain offsets, and the requirements of Lowest Achievable Emission Rates still apply.

A second aspect of the CAA regulations which impacts on resource recovery is a provision that certain modifications to existing facilities bring those facilities under the CAA requirements. An example would be modification of existing utility boilers to burn RDF. The agency previously made the determination under the New Source Performance Standards (NSPS) for stationary sources that such a modification would not bring the unit under the NSPS rules. The Agency is currently reviewing factoring this same determination into the rules for New Source Review.

EPA is taking other actions to ensure that the CAA does not place unwarranted restrictions on resource recovery. The Office of Solid Waste and Office of Air Programs are coordinating closely in development of BACT and LAER control levels related to resource recovery facilities. The Agency is also developing new data on emissions from resource recovery facilities to aid in the review of New Source Review Applications.

However, CAA requirements can be restrictive. The New Source Review process can involve significant uncertainty, time, and cost. Interpretations and requirements often vary significantly among States. For example, under the emission offset interpretive ruling, the exemption for resource recovery is up to the State as the permitting agency. Some States will readily grant an exemption, while others require extensive efforts to obtain offsets that may constitute refusal to grant an exemption.

### Conclusions

The provisions of the Clean Air Act are not at this time preventing implementation of resource recovery. However, they do add significant time, complexity, and cost to the implementation process for many communities. EPA has attempted to remove major restrictions that would have prevented resource recovery implementation.



Res Recov.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

APR 30 A.M.

APR 24 1979

OFFICE OF WATER AND  
HAZARDOUS MATERIALS

Congressman James L. Florio  
Chairman  
Subcommittee on Transportation  
and Commerce  
Committee on Interstate  
and Foreign Commerce  
Washington, D.C. 20515

Dear Mr. Chairman:

At your recent hearings on RCRA reauthorization you requested that we provide you with an analysis of how ~~additional resources~~ could be used effectively to carry out our resource recovery mission.

I have enclosed an analysis which explores this question. The analysis includes a brief synopsis of the current status and probable direction of resource recovery, and discusses our program at EPA in the context of the total Federal resource recovery effort.

I feel that we have a strong program aimed at the key implementation barriers, and that EPA as an agency is ideally situated to carry out this program and also act as a focal point for integrating the programs of the other agencies involved in this area.

Please advise us if you desire any additional information to support the enclosed analysis.

Sincerely,

Steffen W. Plehn  
Deputy Assistant Administrator  
for Solid Waste

Enclosure

## EPA RESOURCE RECOVERY PROGRAM:

## RESOURCE PRIORITIES

After ten years of development, resource recovery has reached an important plateau where much wider scale implementation is possible. This has not occurred, however, because communities have been unable to adequately plan and carry out the complex and costly project implementation process with its attendant "institutional" barriers.

EPA has developed a carefully tailored program of technical and financial assistance to respond to this problem, and has integrated the resource recovery activities of other agencies into that program. We are confident that this program can move resource recovery forward effectively.

EPA Resource Priorities

Resources should be focused on carrying out a strong and effective program as currently designed, rather than branching into new fringe areas of lower potential impact.

The most critical element is the financial assistance provided under the Urban Policy program. Continued funding of this program will lead to a successful local assistance program.

Technical Assistance Panels support for resource recovery is a vital element of the program strategy. Though resources are currently sufficient, the impact of hazardous waste regulations and land disposal criteria could in the coming years generate a large number of new requests for technical assistance in those areas. It is important that there continue to be a sufficient pool of Panels resources to address any reasonable request for resource recovery assistance. Furthermore, Panels resources are required to support the Urban Policy funding recipients.

Technical, economic, and environmental evaluations of operating resource recovery systems will provide one of the most important sources of information for those considering resource recovery. Within the context of the President's budget, it was determined to fund this activity at a limited level. In future years, we may want to reexamine this level.

Finally, the subject of source separation addresses a rather large constituency and produces materials with greater marketability than those recovered through high technology plants.

#### Basis for EPA's Program Priorities

Over the past ten years resource recovery from municipal solid waste has evolved from concept and experiment to commercial implementation. Though technologies and markets are not fully optimized, there are now technically and economically feasible recovery alternatives available. These alternatives include simple, low cost source separation approaches, as well as technically sophisticated technologies. With careful planning and guidance, many communities can employ resource recovery as a practical and cost-effective solid waste management solution.

The primary constraint to more rapid resource recovery progress is the implementation process itself. The procedures involved in implementation are unique and complex. They involve a series of technical, marketing, financial, legal, and organizational factors which must be brought together in a comprehensive, well-structured project planning and development process. Problems in many of these areas are often referred to as "institutional" constraints. However, they include such basic issues as obtaining a long term commitment for supply of waste, understanding technologies and their operating histories, gaining public support, obtaining environmental permits, developing long term contracts with markets and system vendors, and obtaining the lowest cost financing.

In order to address these issues, communities need proper expertise, information, and financial resources. Typically, these elements are not available at the local level.

#### Status and Trend of Implementation

At the present time approximately 22 large and small communities have resource recovery facilities operating or under construction. The total capacity of these facilities -- about 19,000 tons of waste per day when fully operational -- will represent only 3 to 4 percent of total waste generated. Supplemented by the roughly 7 percent of waste discards recovered through source separation, the Nation is now recovering resources from about 10 percent of its discards.

However, increasing energy values and growing cost and social unacceptability of land disposal provide a strong basic force behind resource recovery. With a well coordinated Federal effort to guide resource recovery implementation through this current period of learning and opportunity, resource recovery could account for 20 to 25 percent of our municipal waste generation in the latter part of the 80's, and will be well on the way to becoming the dominant waste management approach.

#### EPA Program

The objective of EPA's resource recovery program is to provide a broad range of technical and financial assistance to State and local governments to assist them in successfully planning and developing resource recovery projects. The program addresses the key barriers to implementation which exist today. The major activities included in this program are summarized below:

Urban Policy Program. Local financial assistance is provided for planning and development of resource recovery projects. (\$15 million in '79; \$13.9 requested in '80). Sixty-eight communities have recently been selected for funding in FY 79.

Technical Assistance Panels. Teams of experts provide specialized problem solving assistance on request to State and local governments without charge. \$1.8 million is available in FY 79 for consulting assistance; peer matching is available through EPA grants to Public Interest Groups, (\$400K in FY 79); EPA staff also participates.

Resource Recovery Seminars. Two-day Resource Recovery Implementation Seminar is presented by EPA staff on the status of resource recovery technology, markets, and institutional issues. Presented in 12 locations to date with outstanding response.

A one-day Source Separation Workshop on alternatives and implementation procedures has been presented in three locations to date, and several more are planned.

Resource Recovery Evaluations. Technical, economic, and environmental performance assessments are performed on commercially operating systems to provide information to local decision-makers. Seven evaluations have been completed, 7-9 more are underway or planned. Over \$4 million invested to date; about \$400,000 in FY 79.

State Planning. Financial support is provided for development of State plans including resource recovery planning. Planning also requires States to remove key legal barriers to resource recovery procurement. Funding is part of \$11 million in other-than-hazardous State planning support in FY 79.

Technical Information and Guidance. This includes published reports on demos, evaluations, surveys, and studies and guidance documents to local decision-makers on resource recovery implementation.

EPA's activities also include a significant research and development effort.

#### Relationship to Other Federal Agencies

EPA, with long standing and clearly established ties to State and local governments, and over 10 years of resource recovery experience, is the logical focal point of the Federal resource recovery effort. EPA's program has been developed with the understanding that two other agencies, the Departments of Energy and Commerce, also have significant responsibilities.

The important role of continued technology demonstration is now being handled primarily by the Department of Energy. This includes full scale commercial prototypes where risks may dictate Federal financial support. The role of market analysis and development, particularly for recovered materials, now resides primarily with the Department of Commerce, although EPA maintains market expertise for support of technical assistance. These three programs address the key factors which will influence the future of resource recovery in this country.

EPA is currently taking the lead in coordinating those activities into a well integrated Federal program. Inter-agency Agreements with both agencies have been signed. EPA is in the process of organizing an interagency committee which will include principally the Department of Commerce and the Department of Energy and also other departments and agencies with an interest in resource recovery. This committee will have as a primary task the development of a well integrated plan for the coordinated implementation of all Federal resource recovery programs.

Mr. MADIGAN. I would also like to suggest that there be some interagency activity within the EPA so that you will be better equipped to make a judgment as to whether or not the 1977 Clean Air Act Amendments are going to have the full potential of shutting this technology down before it really gets off the ground.

Mr. PLEHN. I am sure it will not have that effect, Mr. Madigan, because of the guidance which I described. And as I say, if I could I would like to get something to you for the record that would explain how that is the case.

Mr. MADIGAN. Do you think we should have a Federal law that requires that the State implementation plans allow the location of at least one of these plants in each State?

Mr. PLEHN. I really would not know whether that would be the mechanism for doing that. I would have to consult with my colleagues and, I think, get back to you on that question.

Mr. MADIGAN. You have told us what your activities have been and what the activities of the EPA have been, and you have had something to say and I am very grateful for that, but there is and has been the activity you have described. You have not given us a wish list. You have not said anything to the committee about what you think might be appropriate for us to do in the way of additional providing for you to be able to be engaged in additional activity.

Are there things we could do to move these things along any quicker?

Mr. PLEHN. Our basic feeling is—and I think that this is what the chairman said earlier—that these plants can be operated if they are well-planned on an economic basis; that the private sector can provide the technology and that these systems can move ahead. I think we have a great deal of hope and, I think, confidence that the program which I just described will over the next several years make a great deal of difference.

I neglected to mention that the President's budget for fiscal year 1980 requests an additional \$13.950 million for this program of grants to communities to assist them in planning and procuring these systems. We would certainly hope that those funds would be forthcoming. In the President's message in which he recommended this program, he indicated that this would be a 3-year program. We feel strongly that a third year would be desirable also.

But I guess my answer would be that I think that as far as EPA's program per se is concerned, that we have now got it, I think, well designed. I think we have it under operation and I think it will be of material assistance to the private sector and to those communities that were not desperate to get resource recovery to be successful in achieving that.

Mr. MADIGAN. I have only one more question and it is only for the purpose of clarifying something in my mind. You talked about the financing problems for these plants. I have been under the impression since we jointly sponsored with the Library of Congress a symposium on this activity, calling in people from all around the country who have had some experience, that in order for these plants to be economically feasible, you are going to have to have all of the waste collected and processed at the same time.

I understood you to suggest that some things should be taken out in front, and I am a little bit confused by that. Perhaps I didn't understand you.

Mr. PLEHN. I can explain that in general terms. If you like, I could get you more detailed information. But basically I think that everyone has now come to the realization that on the one hand, it is—let us take paper—a higher value product to take newspaper and other paper out at the front end of a project than it is to turn it into Btu's and get energy out of it. On the other side of the coin, everyone has realized that the taking out of that paper does not really significantly affect the energy economics of the plant and does not put the plant's financing in jeopardy.

The case example of this is Saugus, Mass., the plant Father Drinan talked about. When they originally opened that plant 3 or 4 years ago, they insisted that all of the participating communities have ordinances that said no source separation was allowed, and there was quite a storm about that. But the company, Wheeler-bury-Fry, has since concluded that they did not need to take that position, and in fact has reversed that decision and said: "We don't have any problem with source separation. We can get enough Btu's out of the remaining waste to make our economics work."

I think that is the general perception now that is held by everyone in the resource recovery community.

Mr. MADIGAN. The only other thing that fits into that are the bottle bills. We have a bottle bill introduced in Congress. It has a number of sponsors and I believe it has been referred to this subcommittee. Does the bottle bill have the potential of reducing the economic viability of these plants?

Mr. PLEHN. No, sir. I think the effect would be the opposite. I think it would increase the reliability of these plants because, at least in those plants, let us say the water wall incinerators in which you are incinerating all of the waste and therefore the glass is in that, glass is a problem in terms of causing slagging and corrosion within the plant.

So, to the extent that the amount of glass in the waste being combusted is reduced, the reliability of the plant and the risks involved in the plant are reduced. So I think those are highly compatible.

Mr. MADIGAN. Thank you very much.

Mr. FLORIO. What is the technology at Saugus?

Mr. PLEHN. The waterwall incinerator, Mr. Chairman.

Mr. FLORIO. Mr. Santini.

Mr. SANTINI. Thank you, Mr. Chairman.

I am concerned in the realm of subtitle D, State or Regional Solid Waste Plans. A particular problem has arisen in rural areas of Nevada as the State moves forward to promulgate its plan with regard to the cost of solid waste disposal or the elimination of open land dump sites. There is also a very significant economic reality imposed on some of these small population, large land mass counties composed of only 2 or 3 percent private land out of thousands of thousands of acres.

They have very little in the way of a tax base on which to operate. They have been nickel and diming it for hundreds of

years, and they are told within the next 5 years they have to come up with \$250,000 to eliminate an open dump site.

That phase of the law also does not make the significant provision for economic assistance, and therefore the smaller counties, the smaller rural counties, find themselves betwixt and between. There are very few people who run for city council there advocating open dump sites, but on the other hand, they are faced with a very substantial economic reality. We would just as soon put it underground too, but who is going to pay for it?

We are lucky to get our sewers in, let alone the economic circumstance of eliminating the dump sites for a quarter of a million dollars, which was the proposal 2 years ago in one of the rural counties with a 6,000-people population base and 2-percent private land from which to generate funds to perform public functions. I would appreciate your thought or comment on that problem.

Mr. PLEHN. Well, Mr. Santini, I think you are absolutely correct in saying that for small, rural communities with a limited tax base, that provision of solid waste services that really meet all environmental standards tends to be a difficult thing economically. As you probably are aware, section 4009 of the Resource Conservation Recovery Act authorized grant assistance to rural communities.

We have not, within the funding that has been available to us, in relationship to the other responsibilities assigned to us in that act, been able to recommend funding under that section of the act. I am aware that there is some financial assistance available from other parts of the Federal Government, and I will be glad to submit for the record where that assistance is available, the Farmers Home Administration and the Economic Development Administration and some other organizations.

But we have not been, as I say, able to assign priorities sufficient to recommend funding for that section.

Mr. SANTINI. Has any money been either authorized or appropriated under section 4009?

Mr. PLEHN. No, sir.

Mr. SANTINI. So we have the very frustrating catch-22 situation, at least in the rural constituency, that they are mandated to do something that they don't have the money to do. And they then turn and direct their plea for relief to their dedicated Congressmen. And your suggestion to me in terms of response is that there are other sources of funding available to them?

Mr. PLEHN. One form of assistance that is available to them currently is under RCRA, under our program, is technical assistance under the technical assistance panels program. I know of a number of specific rural counties where that kind of assistance has been provided and where I understand it has been helpful.

I would encourage any of your communities who think they need help to contact our regional office in San Francisco and talk to them about what kind of help under that program might be available to them.

Mr. SANTINI. Mr. Chairman, I move by unanimous consent that a specification of other possible areas of financial assistance to rural counties or municipalities be included at this point in the record.

Mr. FLORIO. Without objection, we would be happy to receive from you your suggestions.

[The following material was received for the record:]





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

APR 11 1979

OFFICE OF WATER AND  
HAZARDOUS MATERIALS

Honorable James J. Florio  
Chairman  
Subcommittee on Transportation  
and Commerce  
Committee on Interstate and  
Foreign Commerce  
House of Representatives  
Washington, D.C. 20515

*APR 12 P.M.*

Dear Mr. Chairman:

This is in response to Congressman Santini's request for information at the hearing on Wednesday regarding Federal financial assistance to rural areas for solid waste management.

The Farmers Home Administration is currently making grants or guaranteeing loans to rural areas for solid waste type projects. FHA has two programs under which rural communities are eligible for financial assistance.

The first is the Community Facilities Loan Program which is a \$250 million annual program. Based on the best estimates of FHA personnel, about one million dollars of the available funds are used for loans for solid waste equipment and facilities in rural areas.

The second FHA program is the Water and Waste Disposal program. This program had a FY 1977 budget of \$197 million for guaranteed loans and \$82 million for grants. In FY 1977 FHA made one grant for \$30,000 and three guaranteed loan grants for \$362,000 in the solid waste areas.

In an attempt to answer your request, we investigated all other known sources of Federal financial assistance in solid waste.

Following is a list of other Federal assistance programs which we contacted concerning possible help to rural areas. Although none of the programs specifically mention solid waste planning, collection, processing or disposal, the objectives and uses of the program make solid waste projects eligible for Federal assistance from these sources. The Federal Domestic Assistance Catalogue provides more information on these programs; the catalogue number follows each program title.

HUD Community Planning and Development Grants (14,203)

Objectives: To assist in the construction of public facilities needed to encourage long term economic growth in areas where economic growth is lagging behind the rest of the nation.

Appalachian Regional Commission - Community Development Grants (23.002)

Objectives: To meet basic needs of local areas and assist in providing community development opportunities by funding such facilities as water and sewer systems, sewage treatment, industrial sites and other community development facilities.

Economic Development Administration - Grants and Loans for Public Works and Development Facilities (11.300)

Objectives: To assist in the construction of public facilities needed to initiate and encourage long term growth in geographic areas where economic growth is lagging.

Environmental Protection Agency - 208 State and Areawide Water Quality Management Planning (66.426)

Objectives: To encourage and facilitate the development and implementation of water quality management plans by areawide agencies and by the state in non-designated planning areas. A key feature of this program, not stated in the catalogue, is that solid waste is considered a "residual" impacting on water supplies and about 20 percent of the funding is to be spent on "residuals" such as agricultural, mining and other solid wastes.

Coastal Energy Impact Program - Environmental Grants  
(11.424)

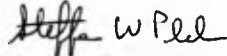
Objectives: To help states and local governments prevent, reduce or ameliorate unavoidable loss of valuable environmental or recreational resources resulting from coastal energy activity. The generation of new wastes or influx of population for developing new or expanded energy sources would make solid waste projects in these areas eligible for Federal assistance.

Farmers Home Administration - In addition to the two previously mentioned programs already funding rural solid waste projects, a third FHA Program is the Business and Industrial Loan Program (10.422)

Objectives: To assist public, private or cooperative organizations. . . Indian tribes or individuals in rural areas to obtain quality loans for the purpose of. . . improving the economic and environmental climate in rural communities including pollution abatement and controls.

I hope this information is helpful to you.

Sincerely yours,



Steffen W. Plehn  
Deputy Assistant Administrator  
for Solid Waste

cc: Honorable Jim Santini  
House of Representatives

Honorable Edward R. Madigan  
House of Representatives

Mr. SANTINI. And would you be kind enough, Mr. Plehn, to send me a copy of that as well?

Mr. PLEHN. Yes, sir.

Mr. SANTINI. Is there any consideration within EPA to moderate the mandate, either in terms of timetables or contents, as it applies to or affects those rural counties that simply do not have the financial resources to implement the mandate of the rule, regulation or law?

Mr. PLEHN. The subtitle D program, Mr. Santini, which is the program directed at other than hazardous wastes, is a basically State and local program. The Federal role in that area is a limited one. We are directed by the law to develop criteria defining sound land disposal as opposed to open dumps. We are directed to conduct an inventory, which we will be doing through the State governments, of existing disposal sites to determine whether they comply or whether they do not.

We are directed to help the State develop a State plan and expand its regulatory powers to deal with all of the other than hazardous waste streams in the States. So I say the basic decisions about the pacing of the inventory, let's say, in your State or other States, and decisions about how to proceed as a result of that inventory, will rest heavily at the State level rather than with EPA itself.

Mr. SANTINI. Well, unfortunately, the problem as it is translated back to me in the form of exasperated city councilmen or county commissioners is suggested to be one of Federal origin rather than State origin. Perhaps it is a classic governmental buckpassing.

Mr. PLEHN. No. I can understand how that would be the perception because we do have this assignment to develop these criteria and they will probably identify a lot of facilities that are presently being operated in rural counties as being open dumps. I think that will be the result for the reasons you described earlier.

Mr. SANTINI. Do you have any other suggestions to help retrieve my rural county commissioners and city councilmen from this damnable dilemma?

Mr. PLEHN. I think the only other point I could make is that our general feeling is that the solution to the financing of both the solid waste management programs at State and regional level, and perhaps at least the designing of the solution of those proposals to those problems should be increasingly based on user charges assessed at the State level.

According to the Council on Environmental Quality, we are presently spending in this society over \$8 billion per year for the management of other than hazardous waste, and we feel it is appropriate and desirable that many States follow the example of six or eight, of which New Jersey is one, which in effect puts a small tax on that volume of expenditures in order to generate the funds needed to improve the level of solid waste management in their States.

Now, whether that is a desirable or feasible course for the State of Nevada, I don't know. But we are endeavoring to study those States which have these systems and develop technical information and assistance so that we can work with all of the other States to see if maybe that isn't a good solution to their financing problems.

Mr. SANTINI. I think the problem has two dimensions to it, and I hope your study will encompass these considerations. On the one hand, if you are dealing with an urban population, I think that appears imminently reasonable. And you have in most urban situations, I think, a populace which is more receptive to increased taxation because they have been conditioned over the years that that is a way of life.

But in the rural areas, particularly those of small population and limited resource situations, an increase of a dumping fee or garbage collection fee from \$5 to \$15 becomes a matter on which all members of the existing county commission are brought out of office. It is representative, if you will, of new taxation, in whatever form or shape it assumes. For those who seek elective office and have been successful in obtaining it, it does not represent a rational solution unless they are anxious to leave elective office and return to the private sector.

Mr. PLEHN. I understand that. The only point I would add to that is that when we are talking about this, we are not only talking about municipal waste generated by households and handled by municipalities. We are also talking about industrial wastes which are other than hazardous.

I think that provides both a responsibility, as defined in RCRA, that those wastes increasingly will have to be regulated to protect the public health and environment, and an opportunity to raise revenues to support some of these other programs.

Mr. SANTINI. Unless we were to tax the cows, I think we would lose in that respect.

Thank you, Mr. Chairman.

Mr. FLORIO. Mr. Plehn, you have heard the conversation with representatives of the Department of Commerce with regard to the procurement and recycling policy and the apparent failure to come forward with any substantial new change in governmental policy which would encourage the use by the Federal Government of recycled materials. Would you respond?

Mr. PLEHN. Yes, sir. Under section 6002 of RCRA, the Congress directed a number of things. They first said, to agencies that buy for the Government, we want you to, one, remove any biases that you may have in your specifications against virgin materials. We want you to, second, change your specifications so that they will permit you to procure the maximum practicable amount of goods containing recovered materials, providing it is consistent with efficient procurement and adequate competition and some other things of this sort.

And then you directed us to develop guidelines.

Mr. FLORIO. "Us" being EPA?

Mr. PLEHN. EPA. To be used by these procurement officials as they undertook this procurement.

Now, I think one of the problems in the act is that you laid this problem on the procuring officials to complete it by this last fall, and that was at the same time that we were doing the initial work on developing the guidelines which presumably these procurement agencies would have used. So that there have been some problems in the implementation of that section.

Mr. FLORIO. Why didn't the development of guidelines from EPA go forward much more expeditiously? Since we knew the agencies had to be on line by a particular time, and one would assume that the guidelines would be helpful to them, don't you think it might have been desirable for EPA to have provided the guidelines earlier on so that the agencies could abide by the law?

Mr. PLEHN. Yes, sir. I think that would have been desirable. We have been working ahead on this. We have had contracts in which we have developed information, and we are in that position within the next several months to issue a number of these guidelines in proposed form for the reactions both of the procurement community and of the supplier community.

Our initial efforts are concentrating on paper, on the use of fly ash in concrete, on the use of sludge as a soil conditioner, and on the use of recovered materials to meet other construction specifications. Basically what we have done is to look at what the Government buys and look at what is in the waste stream which is recoverable, and try to hone in on those areas where the Government's specifications can have the maximum impact in reducing the waste stream.

All I can say is we are moving forward with that as rapidly as we have been able to. We have also prepared an amendment which is now in review within the executive branch, a proposed amendment, which would attempt to better define the relationship of the actions of the procurement officials and our work under the guidelines so that the procurement officials could really—we could do all the detailed analytical work and then make it available to them, and they could take their guidance from the guidelines and proceed to undertake the task.

But as I say, we do have some ideas how we think that 6002 can be slightly modified in order to make that whole effort more effective.

Mr. FLORIO. Your response brings out another problem. I think the bottom line of what you just said is that you did not have the time to get the guidelines put together prior to when the agencies were to incorporate new procedures to encourage the purchasing of recycled materials. It is a legitimate response, and I know you are involved in a lot of other things.

The primary emphasis has been on hazardous waste, which was appropriate, and if that is the case, and if you agree with the thought that the private sector should play a very important role in solid waste and resource recovery, have you got the expertise or the time to become involved with promotional activities? Can you also develop some of these guidelines or procurement policies that are necessary in order to go forward and coordinate, as we talked about this morning, all of the governmental activities needed to emphasize solid waste as a resource recovery mechanism.

Mr. PLEHN. Yes, we believe we do, Mr. Chairman.

Mr. FLORIO. It really hasn't been that good to this point. I want to publicly state that I think you are doing a fine job in the area of hazardous wastes. There have been some delays, but I am convinced the major thrust of what you are doing now is a very good and important one, perhaps the most important thing that you are doing.

But I really am concerned about your being spread all over the place and not being able to give the importance to this area that perhaps you should.

Mr. PLEHN. I think our basic feeling, Mr. Chairman, is that when you talk about the recovery of energy or materials from waste, you have to recognize that the primary initiating actor has to be that community out there that has the garbage and has to manage it, and that communities get into resource recovery.

Granted, a lot of people, including all of us in this room, want to recover all of the resources we can from waste, but they get into it as a part of the process of their solid waste management. I think there is an important role for the Department of Commerce here in terms of the development of these specifications which would improve the dialog between the plant that produces materials and the potential consumers.

I think that there is an important role for the Department of Energy with their energy orientation, and particularly, as I said, because of their ability to secure resources to move forward the advancement of technology in this area. But I think that it is critical to EPA's role as being responsible for the overall management of solid waste to protect the health and environment and to recover the resources, and because of the importance of the communities and States in being the front line folks who are going to in fact make this happen, along with private enterprise, for this program effort that we have organized here to move forward.

Mr. FLORIO. Well, there is a real question in my mind as to whether or not there is something that has been organized. I was interested in what you said before about your recent development of guidelines for the greater utilization of sludge on composting and for land dispersal programs.

As I have indicated to you before, a grant was given by EPA to the city of Camden, in my district, for converting sludge into composting. The initial problem was that sludge could not be dumped in the ocean, and we therefore had a great storage problem. The city had monstrous warehouses of sludge.

Now, without apparently sufficient thought, a program has been authorized for the turning of sludge into composting. We have now found that because of the unique nature of the sludge, which has arsenic, cadmium, and heavy minerals in it, that the composting can't utilize on the land because it is still too offensive environmentally. Now we have a problem storing the compost the same way we had a problem storing the sludge. Now guidelines are being developed notwithstanding the fact that moneys have been spent in the past.

Likewise, to make a specific local reference again, one hand does not appear to know what the other hand is doing. As you know, Camden County and Camden City were granted the planning moneys for the development of an appropriate solid waste system. On the other side of the county line, Gloucester County has just been given a grant for a particular methodology.

That is, solid waste would be combined with sludge in order to dispose of the problem that they have in that district, not taking into account that it may very well be that the appropriate planning will reveal for Camden County that the catchment area

should not be just Camden County. Perhaps it should be Camden and Gloucester County.

You are locked into one technology in one county when you are doing the planning in another county, which may show the most cost effective way of dealing with the problem is not on a county-by-county area. Of course, the other study was out of DOE.

I really have some serious problems as to whether there is a system. You have talked about being the lead agency and have expressed an interest in maintaining that position, but I have not really seen any semblance of organization or cooperation over the last 3 years. The procurement example was a fine one. The fellow from the Department of Commerce came in and said they got involved not too long ago, then sort of washes his hands of involvement. That behavior is neither desirable nor is it conducive to building the confidence of this committee and of Congress as to what is going on, particularly when we are coming up for authorization and are also looking to provide you with more money.

Mr. Madigan's point before to the Department of Commerce, should, I think, be equally directed to you. What would you do if we gave you more money than you have even requested? How would you separate the priorities? How would you give us a plan which would indicate how you are going to improve the operation of the solid waste initiative so we can have more confidence in what you are doing?

Mr. PLEHN. I understand your question and I can certainly appreciate the basis for it.

Mr. FLORIO. I suppose it wasn't a question; it was a speech.

Mr. PLEHN. Just to pick up on your last point, I think this agreement which we have worked out with the Department of Energy is specifically designed to solve that problem. It is fair to say that last year both we and the Department of Energy had what were potentially conflicting programs in terms of working with the local communities, and as a result of our agreement, the Department of Energy is saying we are going to get out of that, we are not going to do that any more, we are going to leave that to you, EPA.

We are saying that to the extent that you, DOE, have specific technology interests that you want to promote, we will help you get in touch with the right community for doing that. So I think it is exactly the deal with the points you have just described, that this agreement we have worked out with the Department of Energy will be very beneficial.

It certainly is not an easy matter, and I would not want to pretend that it is, to coordinate these programs between Federal agencies or even within particular agencies. We all try to do that the best we can. I think that in the resource recovery area, that we have at this time, I think, really laid the very strong groundwork to make these programs interact together.

Part of the problem with the Department of Commerce, as Mr. Baruch says, is they really have not had the resources to do very much of anything in this area until very recently.

Mr. FLORIO. Mr. Madigan.

Mr. MADIGAN. I just have one other question and I am just trying to understand where the responsibility lies, if anywhere, and



if not, where we can assign it. I am particularly interested because we are the Transportation Subcommittee and because we have other responsibilities as a consequence of that. I don't understand why we don't attempt to take advantage of the deadheading that our transportation vehicles do.

If I can give you a case in point, hundreds of millions of tons of grains are processed at various processing plants in the Midwest, and then that grain is hauled to Southern States where it is fed to cattle, or to Galveston where it is shipped out at the port, or to New Orleans where it is shipped out at the port.

Whatever the vehicle for that southern movement is, it comes back North empty, whether it is a railroad train, a barge or whatever it is. It comes back empty because there are no boat commodities down there to be moved back North, back to the Midwest. I don't understand why we couldn't be hauling solid waste out of New Orleans or Galveston or somewhere else in these vehicles which are empty.

Anyway, back to these grain processing plants, which are very energy intensive, I don't understand why things like that can't be put together, and I don't understand why 3 years has gone by without anyone talking to us in solid terms about proposals to do that.

Now, I have just asked Mr. Malloy whose responsibility it is. Is it the Department of Commerce's or EPA's or whose? He suggested to me that under the existing law, it is everybody's responsibility: the Department of Commerce in the sense that they are supposed to find markets for recyclable materials; that it is your responsibility and you should be concerned with finding ways of disposing solid waste. When do we get ideas like that? Who works on those? And why haven't we already one on it?

Mr. PLEHN. Well, EPA has been involved with the rail haul of solid waste for about 10 years now. Back in the late 1960's we commissioned a study by the American Public Works Association of the use of rail haul by cities to deal with their garbage, and in the early 1970's, 1972, we made demonstration grants to two communities, to Cleveland, Ohio, and Philadelphia. Cleveland then for some reason dropped out and Atlanta became the second project.

In the case of Atlanta, the Southern Railroad, I believe, was involved, and the contract with the railroad expired before the city had completed the transfer station which was needed to make this system work. For that and other reasons, I am told, that project did not come to fruition.

In the case of Philadelphia, there were enormous problems, initially, in finding a rural landfill willing to accept the waste from the city of Philadelphia. It was really a very difficult problem, and they abandoned trying to work it out between the government of Philadelphia and rural communities, and instead turned to the private sector and said, can you find a landfill, which they succeeded in doing.

That test operated for 13 weeks last year. It showed that it worked. I think the problem was that the costs were really pretty high. It came to about \$15 a town in that instance, and the city of Philadelphia then had some less expensive options open to it in the short run.

I think the major problems with the use of rail haul—and I would like to say there are systems in operation. One is in operation in Omaha, and there is one in operation in London, England, and I am sure there are others. But the basic problems are, I think, first the problem of finding sites in the rural communities willing to accept waste from urban areas. That is just one aspect of the whole siting problem which we talked about earlier.

The second problem is cost, how the economics of these things work out. The third problem, I guess, gets to the interaction between rail haul as a way of moving waste for disposal and resource recovery, because I think in a lot of cases it is going to turn out that the economics of resource recovery near the metropolitan area are going to be better for a community than moving the waste to a distant location by rail.

Mr. MADIGAN. But you understand that, unlike the Philadelphia experience, we are talking here about trains that move loaded from rural areas several hundred miles into major metropolitan areas and then move back, always empty. They never have anything to haul back. So the economics of that are perhaps different than a train going between places where it otherwise would not go.

Mr. PLEHN. I looked into this some years ago when I was at the Council on Environmental Quality, with reference to sludge. I really asked the same question, why couldn't trains take sludge on the backhaul from the Northeast to the central part of the country. One of the answers I was given by the railroads is that from their point of view, they would rather turn those cars around and get them back fast. They feel that that is economically better than taking them to another point, loading them, taking them back, unloading, and then bringing them back again.

That is a question I think you ought to ask the railroads. But that was somehow a problem in their economics.

Mr. MADIGAN. I don't want to belabor it. I do want to reemphasize what the chairman has said. Earlier I asked you about your wish list, and we are very serious.

Mr. PLEHN. Yes, sir, I understand that, and we will respond to that.

Mr. MADIGAN. All right. Thank you very much.

Mr. FLORIO. Thank you very much. We appreciate your help.

Mr. PLEHN. Thank you, Mr. Chairman.

Mr. FLORIO. Our next witness is Mr. Basil Snider, president of the Garden State Paper Co., Arlington, Va. Mr. Snider, we welcome you to the committee.

Mr. SNIDER. Thank you.

Mr. FLORIO. As indicated to the previous witnesses, your entire statement will also be inserted in the record. We ask that you identify your colleague for the record and proceed in a summary fashion.

**STATEMENT OF BASIL SNIDER, JR., PRESIDENT, GARDEN STATE PAPER CO., INC., ACCOMPANIED BY ROBERT H. DAVIS, NATIONAL DIRECTOR OF PROCUREMENT FOR WASTE-PAPER ACTIVITIES**

Mr. SNIDER. Thank you, Mr. Florio. We will be as quick and brief as possible. I think the way to do that, certainly in my case, is to quickly read the statement and go from there.

As you have already said, my name is Basil Snider. I am the president of Garden State Paper Co. I have with me Robert Davis, who is the national director of procurement for Garden State's wastepaper activities.

We do appreciate this opportunity to appear before you this morning, and I think it would be appropriate if we at least very quickly told you who we are.

Garden State Paper Co. is the world's largest recycler of used newspaper into fresh newsprint. We were founded in 1960 and we currently consume over a half million tons of used newspaper per year at two wholly owned recycling mills, one in Garfield, N.J., and one in Pomona, Calif. We have a third joint venture mill with Field Enterprises in Alsip, Ill. Since acquiring Garden State Paper Co. in 1970, Media General, Inc., our parent company, has further expanded the recycling process through a joint venture with the Mexican Government, and 90 percent of that raw material flows from our country basically down in the Southwest.

We also have under construction another joint venture with Knight-Ridder Newspapers and Cox Enterprises, and this mill is in Dublin, Ga. We expect it to come onstream this summer, and it will use another 150,000 tons of used newspaper.

So you can see that our process is widely used and will be responsible for something on the order of three-quarters of a million tons of used newspaper per year.

We particularly want you to note that this raw material is in fact a component of and is acquired through access to the municipal solid waste stream. We underline that phrase, Mr. Chairman, "access to the municipal solid waste stream." We are concerned that what we perceive to be a headlong rush to embrace energy recovery may preempt and foreclose continuing access to municipal solid waste for the recovery of recyclable materials.

We are concerned that urban waste to energy disposal programs of agencies of the Federal Government are weighted heavily in that direction. We are concerned that the emphasis toward waste to energy recovery technologies tends to ignore the compatibility of materials/energy recovery systems.

The proponents of waste-to-energy recovery technology tend to ignore also the energy conservation potential of waste materials recovery through source separation. Our company is not alone in this perception of the threat to materials recovery and recycling which is posed by energy-recovery-only systems. We reflect views shared by the American Paper Institute, the Can Manufacturers Institute, and the Glass Packaging Institute. The views are summarized in a joint statement which I have with me and which, with your permission, I would like to make a part of the record.

The basis for our concern is our perception of the lack of overall direction and coordination in the Federal Government of agency

plans and programs for resource recovery, Congress has made it clear in its various enactments that materials and energy recovery are of equal national concern. However, agency administrators apply their own priorities based upon their views of how best to carry out their basic missions.

In the Environmental Protection Agency, for example, there has been a significant shift in its solid waste program. The well-balanced approach toward resource recovery has now shifted focus and has already been set toward hazardous waste. The EPA fiscal year 1980 solid waste budget request makes a drastic reduction in the technical assistance and resource recovery programs.

In effect, EPA has reprogramed its entire funding in these areas. We are fully aware of the vital importance to the environment and the public health of attacking these problems. We are concerned, however, that this is being done at the expense of resource recovery programs, which are also vital to the Nation's economy.

The Department of Energy allocates huge sums of moneys to programs to encourage the design and testing of urban waste-to-energy systems. Substantial grants are being made to municipalities to study the feasibility of energy recovery systems for the conversion of solid wastes. We are not aware of a single project sponsored by the Department of Energy which requires the grant recipient to study the feasibility of operating a source separation program for wastepaper and other recyclable materials as an adjunct to the energy recovery facility. We believe this is a serious omission on the part of DOE's approach to the urban waste program and implementation. We feel the congressional intent for the balanced materials energy approach to energy recovery is not being served by DOE's energy-recovery-only emphasis.

We are concerned that the narrow focus being applied by mission-oriented agency administrators is denying the Nation a comprehensive approach to maximizing its valuable waste material resources. What is needed is the kind of unfragmented coordinated planning effort that is represented by a study which was published last fall by the DOE of the State of New Jersey.

It is known as the New Jersey Energy Master Plan. The study brings into focus the resource recovery potential of the State's presently burdensome solid wastes. The plan contemplates 3,400 tons of refuse per day, or around 20 percent of the 17,000 tons of municipal solid waste generated, will be source separated for recycling into new materials and products, and that 70 percent of the municipal solid waste stream will be processed through energy recovery facilities. The remaining 10 percent of the waste stream would be landfilled.

The plan indicates that the equivalent of over 2.2 billion kilowatt-hours could be saved annually by the use of recovered materials from solid waste when compared to the use of virgin materials. The plan also states that "when combined with the amount of energy produced from solid wastes, this represents the equivalent of the entire energy needs of over 1.2 million average homeowners in New Jersey for an entire year." Significantly, of the plan's estimated 5.5 billion kilowatt-hours of energy value annually in New Jersey's solid waste, 40 percent is attributable to the energy conservation value of recyclable materials recovered through

source separation. The economic development potential of effectively managed solid wastes is also highlighted in the New Jersey plan.

The plan makes reference to a study of the Port Authority of New York and New Jersey entitled "Industrial Development Feasibility Study." In this study it is contemplated that a 200-acre integrated industrial recycling park could generate 4,000 jobs through the utilization of 2,000 tons of refuse per day for the separation of recyclable materials and the production of energy.

What can the government do to help in achieving the resource recovery objectives which are undeniably sound? We believe that activation of functions assigned to the Department of Commerce by RCRA could provide a solution to the narrow restraints imposed upon resource recovery efforts by the Environmental Protection Agency and the Department of Energy.

We believe that the failure to provide funds to the Department of Commerce to carry out its responsibilities for identifying and developing markets for recovered materials represents a serious impediment to the achievement of resource-recovery objectives. The Congress widely recognized, as stated in the House report on RCRA, and I quote:

The strength of recovered materials markets is the key to a successful resource recovery project, whether it involves a high technology, capital intensive waste processing plant or a source separation scheme.

The report states further:

The Department of Commerce has, because of its longstanding relationship with private enterprise, the channels of communication necessary to encourage greater involvement in resource recovery and the use of recovered materials.

So, Mr. Chairman, the resources of the Department of Commerce are invaluable to the fulfillment of the resource recovery objectives of the law. Its data gathering facilities and industry knowledge and expertise can, we believe, provide the basis for a more realistic and practical approach to the design of compatible materials/energy resource recovery programs contemplated by the law.

An effective Department of Commerce effort in carrying out its marketing assessment function under the law is essential to the proper evaluation of the viability of resource recovery programs of both the DOE and the EPA. Marketing assessment studies would help municipalities determine the viability of source separation and other materials recovery program proposals. They would also encourage DOE to give consideration in its planning to the advantages of combined materials and energy recovery systems.

As stated in the joint statement of the paper, glass, and can industries, the basic framework of Public Law 94-580 is sound with respect to the promotion of a balanced approach to materials and energy recovery. The weakness lies in its implementation by virtue of the void which is perceived to exist in the Government's coordinating mechanisms.

We believe that the activation of the functions of the DOC and the assumption by the Secretary of a leadership role will result in a more cohesive planning effort on the part of the Federal Government.

We urge that the committee provide specific authorization language in the RCRA Act to enable the Department of Commerce to seek appropriations for carrying out its important mandate under

the law. We urge also that the committee make clear in its report that the Secretary of Commerce is expected to serve as the focal point in the executive branch on all matters having to do with resource conservation and recovery. The Secretary would be responsible for the review and coordination of Federal agency programs or actions affecting the disposal, use, and regulation of recyclable waste materials.

With that, I would be pleased to answer any questions which the committee may have.

[Mr. Snider's prepared statement follows:]

March 28, 1979

STATEMENT OF BASIL SNIDER, JR.  
PRESIDENT  
GARDEN STATE PAPER COMPANY, INC.

BEFORE

THE SUBCOMMITTEE ON TRANSPORTATION AND COMMERCE  
OF THE HOUSE COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE  
ON THE REAUTHORIZATION OF PUBLIC LAW 94-580

My name is Basil Snider, Jr., and I am President of the Garden State Paper Company.

I have with me this morning Robert H. Davis who is the Director of Garden State's wastepaper procurement activities.

We appreciate the opportunity to appear before you this morning and share with the Committee our views and concerns about the operation of the Resource Conservation and Recovery Act of 1976. I will begin by reviewing briefly the work of our company in the recycling of waste materials.

Garden State Paper Company is the world's largest recycler of used newspaper into fresh newsprint. Founded in 1960, Garden State Paper currently consumes over 500,000 tons of used newspaper per year at two wholly owned recycling mills--Garfield, New Jersey and Pomona, California, and a third joint venture mill with Field Enterprises in Alsip, Illinois. Since acquiring Garden State Paper in 1970, Media General, Inc. has further expanded the unique recycling process through a joint venture with the Mexican Government--90 percent of raw material supply is from the United States--and another joint venture mill with Knight-Ridder Newspapers and Cox Enterprises. This latter mill is under construction in Dublin, Georgia, and, when completed sometime this summer, will consume 150,000 tons of used newspaper annually that will be collected in six Southeastern States. Thus, the Garden State recycling process will soon be responsible for recycling three-quarters of a million tons of used newspaper per year. It is noteworthy that this valuable industrial raw material is acquired through access to the municipal solid waste stream.

Mr. Chairman, the key phrase in this brief summary is "access to the municipal solid waste stream." We are concerned that what we perceive to be a headlong rush to embrace energy recovery technology may preempt and foreclose continuing access to municipal solid waste for the recovery of recyclable materials. We are concerned that urban waste disposal programs of agencies of the Federal government are weighted heavily in favor of energy recovery. We are concerned that the emphasis toward waste-to-energy recovery technology tends to ignore the compatibility of materials/energy recovery systems. The proponents of waste-to-energy recovery technology tend to ignore also, the energy conservation potential of waste materials recovery through source separation.

The Garden State Paper Company is not alone in its perception of the threat to materials recovery and recycling which is posed by energy recovery only systems. We reflect views which are shared also by member companies of the American Paper Institute, the Can Manufacturers Institute and the Glass Packaging Institute. These views are summarized in a joint statement which I have here with me. I would appreciate it Mr. Chairman, if you would include the statement in the record of the hearings.

The basis for our concern is our perception of the lack of overall direction and coordination in the Federal government of agency plans and programs for resource recovery. Congress has made clear, in its various legislative enactments, that materials and energy recovery are of equal national concern. Agency administrators, however, apply their own priorities based upon their views of how best to carry out the basic mission of the agency.

In the Environmental Protection Agency, for example, there has been a significant shift in its solid waste program. The former well balanced approach to resource recovery has given way to a new focus on hazardous waste and land disposal regulation. The EPA fiscal year 1980 solid waste budget request makes drastic reductions in the technical assistance and resource recovery programs. In effect, EPA has reprogrammed its funding in the solid waste area, and has shifted resource recovery funds to hazardous



waste programs. We are fully aware of the vital importance to the environment and the public health of attacking the burgeoning problems of hazardous waste. We are concerned, however, that this is being done at the expense of resource recovery programs which too are vital to the nation's economy.

The Department of Energy allocates huge sums of money to programs to encourage the design and testing of urban waste-to-energy systems. Substantial grants are being made to municipalities to study the feasibility of energy recovery systems for the conversion of solid waste. We are not aware of a single project, sponsored by the Department of Energy, that requires the grant recipient to study the feasibility of operating a source separation program for wastepaper and other recyclable materials as an adjunct to the energy recovery facility. We believe that this is a serious omission in DOE's approach to urban waste-to-energy program implementation. We feel that Congressional intent for a balanced materials/energy approach to resource recovery is not being served by DOE's energy recovery only emphasis.

We are concerned that the narrow focus being applied by mission oriented agency administrators is denying the nation a comprehensive approach to maximizing its valuable waste material resources. What is needed is the kind of unfragmented coordinated planning effort that is represented by a study which was published last fall by the Department of Energy of the State of New Jersey.

Known as the New Jersey Energy Master Plan, the study brings into focus the resource recovery potential of the State's presently burdensome solid waste. The Plan contemplates that 3,400 tons of refuse per day, or 20% of over 17,000 tons of municipal solid waste generated each day will be source separated for recycling into new materials and products; that 70% of the municipal waste stream will be processed in energy recovery facilities and the remaining 10% of the waste stream will be landfilled.

The Plan indicates that the equivalent of over 2.2 billion kilowatt hours could be saved annually by the use of recovered materials from solid waste when compared to the use of virgin materials. The Plan states also that... "when combined with the

amount of energy produced from solid waste, this represents the equivalent of the entire electrical energy needs of over 1.2 million average homeowners in New Jersey for an entire year.' Significantly, of the Plan's estimated 5.5 billion kilowatt hours of energy value annually in New Jersey's solid waste, 40% is attributable to the energy conservation value of recyclable materials recovered through source separation.

The economic development potential of effectively managed solid waste is also highlighted in the New Jersey Plan. The Plan makes reference to a study of the Port Authority of New York and New Jersey entitled "Industrial Development Feasibility Study." In this study it is contemplated that a 200 acre integrated industrial recycling park would generate 4,000 jobs through the utilization of 2,000 tons of refuse per day for the separation of recyclable materials and the production of energy.

What can the government do to help in achieving the resource recovery objectives which are undeniably sound?

We believe that activation of functions assigned to the Department of Commerce by the Resource Conservation and Recovery Act could provide a solution to the narrow restraints imposed upon resource recovery efforts by the Environmental Protection Agency and the Department of Energy. We believe that the failure to provide funds to the Department of Commerce to carry out its responsibilities for identifying and developing markets for recovered materials represents a serious impediment to the achievement of resource recovery objectives. The Congress wisely recognized, as stated in the House Report on RCRA... "the strength of recovered materials markets is the key to a successful resource recovery project, whether it involves a high technology, capital intensive waste processing plant, or a source separation scheme." The report states further "The Department of Commerce has, because of its long standing relationship with private enterprise, the channels of communication necessary to encourage greater involvement in resource recovery and use of recovered materials."

Mr. Chairman, the resources of the Department of Commerce are invaluable to the fulfillment of the resource recovery objectives of the law. Its data gathering facilities and industry knowledge and expertise can provide the basis for a more realistic and practical approach to the design of compatible materials/energy resource recovery programs contemplated by law. An effective Department of Commerce effort in carrying out its marketing assessment functions under the law is essential to the proper evaluation of the viability of resource recovery programs of the Department of Energy and the Environmental Protection Agency. Marketing assessment studies would help municipalities determine the viability of source separation and other materials recovery program proposals. They would also encourage DOE to give consideration, in its planning, to the advantages of combined materials and energy recovery systems.

As stated in the joint statement of the paper, glass and can industries, the basic framework of Public Law 94-580 is sound with respect to the promotion of a balanced approach to materials and energy recovery. A weakness lies in its implementation by virtue of the void which is perceived to exist in the government's coordinating mechanisms. We believe that the activation of functions of the Department of Commerce and the assumption by the Secretary of a leadership role will result in a more cohesive planning effort on the part of the Federal government.

Mr. Chairman, we urge that the Committee provide specific authorization language in the Resource Conservation and Recovery Act to enable the Department of Commerce to seek appropriations for carrying out its important mandate under the law. We urge also that the Committee make clear in its report that the Secretary of Commerce is expected to serve as the focal point in the Executive Branch on all matters having to do with resource conservation and recovery. The Secretary would be responsible for the review and coordination of Federal agency programs or actions affecting the disposal, use and regulation of recyclable waste materials.

I will be pleased to answer any questions which the Committee may have.

Mr. FLORIO. Thank you very much.

Mr. MADIGAN. If I can quote from your statement, activation of functions assigned to the Department of Commerce by RCRA could provide a solution to the narrow restraints imposed upon resource recovery efforts by EPA and the Department of Energy. Would you elaborate on these narrow restraints that you feel these two other agencies have imposed?

Mr. SNIDER. First of all, I think, as has been said by previous witnesses, each in their own way, and we have not, of course, heard from the Department of Energy this morning, but each in their own way is working diligently on the task as they perceive it.

They are, however, in the case of EPA, and of necessity they put great emphasis on the possible hazardous aspects of the waste. The disposal aspects of something relatively simple, as Mr. Florio has pointed out, the sludge, if you will, from a municipality, can often be found to be highly hazardous under the EPA regulations.

As a consequence, the focus then tends to shift rather quickly toward the nature of that material. The economics of the entire situation are not always given full consideration. And again, we have had Mr. Florio cite a classic example.

On the other hand, the Department of Energy—and again, rightly so—is trying to help this country solve its energy problem, which is a very severe problem, and we must and should derive energy from our solid waste.

Now, the case has been cited here what happens in Europe. You have the strong economic incentive on the part of people who are resource shy to concentrate on that kind of thing, and they have been quite successful. And I predict that we in this country will be given the economic incentives to do so.

But you have mission orientations, strong mission orientations. There is not a thing wrong with that, but often the overall economics, and even the logistics which you just cited, are not given proper consideration.

We would propose that if there were an agency—and perhaps this interagency group, which I have really just learned of this morning, this coordinating group—perhaps out of that, at least with a strong leader, could come the kind of overview to coordinate the kind of efforts which we perceive to be quite good in all of the agencies.

Now, the Department of Commerce, however, as I understand it, has certainly been underfinanced in this area, and it cannot bring to bear some of the technical expertise which does in fact exist there in the form of some of the testimony Dr. Baruch gave earlier.

Mr. MADIGAN. We are not aware of their ever asking for any money.

Mr. SNIDER. Well, they should, and we propose that they do and we propose that you gentlemen examine that.

Mr. MADIGAN. Are you suggesting or would you suggest that we as the legislative body should make some changes in the law specifying where we think greater emphasis needs to be put by the Department of Energy and the EPA?

Mr. SNIDER. What we are proposing is, again, underlining the word "coordinating." Perhaps I am not sure I heard your question correctly, Mr. Madigan. But the key word is obviously "coordinat-

ing," and it is obvious that you gentlemen perceive this problem through the questioning that I have just heard of the other witnesses.

There is a lack of coordination. All three departments, it has been said, I believe, by your counsel, are responsible. You cannot have that and have an effective program because they are interwoven. There is energy in the municipal solid waste streams. There are recoverable resources which are not being fully recovered. There is a hazard in the way solid waste can and has been handled. However, there is the challenge to coordinate that overall waste problem that exists in this country in such a way that we will maximize the economics from it, which embraces, of course, material and energy as well as protecting our environment.

Mr. MADIGAN. I have no other questions. Thank you, Mr. Chairman.

Mr. FLORIO. Mr. Santini.

Mr. SANTINI. I read your statement and thought it was a well considered and thought out statement in view of the magnitude of the problem you are addressing. I wonder, as I view on page 5 your conclusion:

We also urge that the committee make it clear in its report that the Secretary of Commerce is expected to be the focal point in the Executive Branch on all matters dealing with resource conservation and recovery.

If you have any realistic basis to believe that a recommendation of that nature would be successful or positively received on the administrative side of this decisionmaking.

Mr. SNIDER. I can't honestly say that I have any, if you will, inside information that it would be accepted. I heard one of the earlier witnesses here, and I think this is a problem of management of government and management of business. We make judgments on who is the best leader, if you will, in a given situation.

I think what we are proposing as a mechanism is, departmentally as we perceive it in the Federal Government organization, from an industry point of view—and after all, in the final analysis it will be the private industry. One of my friends says: I used to be a junk dealer and now I am a recycler. Whether it is a small businessman or a larger company such as ours, there will have to be the coordination and input and perception on the part of people such as us that there is a profit to be made, and at the same time to assist in the solution of a very real problem.

As to whether the leadership, and this proposal, therefore, would be acceptable to the administration, I have no inside information as to whether it would or would not. We merely perceive that it could be an effective coordinating agency if it is properly funded. As Mr. Madigan says, they have not asked for it, but we would encourage you gentlemen to direct that funding.

Mr. SANTINI. At last your private or representative judgment is that the agency best able to implement the sweeping expectations about this law would be the Commerce Department versus the Environmental Protection Agency, for example?

Mr. SNIDER. That is what we are saying. That is right. We think that the EPA, by law and by direction and by expertise, is aimed more narrowly into the environment, if you will. We think the Department of Energy is aimed as the title suggests. Why can

there not be, because there is a commercial aspect to the municipal solid waste stream, the Department of Commerce, whose name, again, implies that this problem can be dealt with on a broad basis from a commercial point of view, which would, therefore, be for the best of the country and the businesses involved?

Mr. SANTINI. I think there is merit to what you suggest, however, it conflicts with the fact that the Environmental Protection Agency has been far more aggressive in pursuing its legislative mandate in the context of these three objectives we are pursuing than either of the two other agencies.

Energy is still trying to figure out where its office building is located. Commerce, quite candidly, has simply placed it in such a low priority—as evidenced by the nonexistent budget and funds allocated for it—that they obviously don't regard it a matter of national priority interest in terms of their agency's operation.

It seems to me inherently self-defeating to recommend that an agency that has already assigned it a death knell status take over the implementation of it. I certainly agree with the observations you and other witnesses have made before the committee. There is a breakdown in coordination. There is, as the chairman characterized it, a situation in which the left hand doesn't know what the right hand is doing.

I am just a little bemused and bewildered as to how this committee could provide any rectification of that obvious dilemma. It is there. How could this committee also have an objective department like the Department of State coming in and taking it over?

Mr. FLORIO. If the gentleman would yield, I think it might be important to have the Department of State involved. I have noted from other earlier witnesses that it has taken 3 years to obtain interagency agreements, and since Mr. Begin and Mr. Sadat didn't take that long to come to an agreement, perhaps the Department of State might be better able to facilitate the negotiations which take place between the agencies.

Mr. SANTINI. With that observation, hyperbole or no, we are really up against conflicting mission situations. Commerce has its mission, EPA has its mission, Energy is still defining its mission, and I don't know that this committee by recommendation could wave the magic wand that would produce the desired balanced implementation you are reaching for. I just share my struggle, my analytical struggle, with you because I don't know what the devil to do.

Mr. SNIDER. We do understand. In fact, we know that Madam Kreps has responded favorably to some letters requesting that the Department of Commerce take a more active role. We also understand that there have been past requests for funds through the OMB and that they have been denied. Again, I would perhaps say to you gentlemen that I perceive that you have the power to investigate those two facts and to determine if, in fact, there is more desire on the part of the Department of Commerce than that which is perceived here this morning.

Mr. SANTINI. Thank you, Mr. Snider, for your testimony.

Mr. SNIDER. Thank you.

Mr. FLORIO. Mr. Snider, let me just conclude by saying it is the intention of the chairman, I think with the concurrence of the

subcommittee, to reemphasize the resource recovery component of the total problem, as has been indicated by a number of witnesses. EPA legitimately regards its primary mission as the public health aspect of solid waste disposal considerations; DOE, energywise.

The Department of Commerce should be the agency that deals with recycling and putting the private sector into the equation at a much greater extent. I think there is a need for a greater degree of balance. It is very easy to wallow around in frustration. We all feel unconvinced that what the Government has done under this law over the last 2 or 3 years has been very productive, with the exception, in my opinion, of the hazardous waste area.

But you can rest assured that since EPA is the lead agency, we are going to very dramatically, and perhaps very publicly, be pointing out to them some of the silliness that takes place from time to time. We hope, that this will induce them to pull themselves together and play a more effective role as the lead agency, particularly in bringing in the other two agencies to play an appropriate coordinated role.

I just wanted to let you and everyone else know that this committee is going to be in a much more up-front position in trying to emphasize to the country the importance for doing something in this area, and perhaps make it a much more visible issue than it has been in the past.

We appreciate your cooperation and your thoughts this morning. And we also look forward to working with other parts of the private sector in trying to place them into the equation where appropriate.

Thank you very much. We appreciate your help.

Mr. SNIDER. Thank you, gentlemen.

Mr. FLORIO. Our next witness is Ms. Sonia Johannsen, supervisor of Black Hawk County, Iowa, on behalf of the National Association of Counties. We welcome you to the committee. As indicated, your statement will be made a part of the record, and we would appreciate your going forward in summary fashion.

#### **STATEMENT OF SONIA JOHANNSEN, ON BEHALF OF THE NATIONAL ASSOCIATION OF COUNTIES, ACCOMPANIED BY MARK CROKE, LEGISLATIVE REPRESENTATIVE**

Ms. JOHANNSEN. Thank you and good morning. The National Association of Counties<sup>1</sup> appreciates the opportunity to present our views on the Resource Recovery and Conservation Act of 1976, and we very much thank the subcommittee for conducting these hearings.

#### **BACKGROUND**

American counties are the main providers of solid waste management services. In fact, a 1975 survey of county government functions indicated that over 70 percent of reporting counties are responsible for the disposal of solid waste. Of even greater significance is the fact that during the last decade counties have assumed 75 percent of all transfers of the solid waste function from municipi-

<sup>1</sup> The National Association of Counties (Naco) was founded in 1935 as the national spokesman for counties, to serve as a liaison between county governments and other levels of government and to improve the understanding of the role of counties in the Federal system.

pal governments. The county role, which has been large, continues to grow.

Our concern with the future of the Resource Conservation and Recovery Act, and indeed with the future of all solid waste management issues, could not be clearer. Naco vigorously supported the enactment of the 1976 act and we continue to support its concepts. However, we have serious problems with the direction in which Federal solid waste and resource recovery efforts are going.

Naco originally supported passage of the 1976 act with the understanding that it would not become merely an effort in State planning. Originally, and even more so today, we felt that the provisions of subtitle D would be implementation oriented. Specifically, the dump closing standards and the planning requirements were viewed as necessary to insure nationwide uniformity and so as to not favor one community over another. However, we also anticipated adequate resources to meet this standard. The allocation of resources away from counties and to the States and from solid waste into hazardous waste management has imposed on counties, and in particular rural counties, Federal standards and allowed few resources to achieve the standard.

The dump-closing mandate may prove especially burdensome to counties which must close and maintain dumps which may contain hazardous waste. If the sanitary landfill criteria are promulgated as proposed, we anticipate immense costs imposed almost overnight for installation of leachate collection and treatment systems, monitoring wells, gas migration and venting controls and other safeguards. If the regulations are to apply equally to rural and urban counties, at 1-ton-per-day and 1,000-tons-per-day landfills, then the rural counties need assistance.

While assistance for implementing the act is clearly necessary, we feel that implementation should be closely linked with planning. However, we are disappointed with the activity of both the States and EPA in this area.

#### TOWARD IMPLEMENTATION

Subtitle D as approved by the Congress in 1976 was based on the premise that the activities of local and State governments should be implementation oriented. The process for designating solid waste planning agencies at the local level has been less than satisfactory and the preparation of plans has been hampered by EPA's failure to promulgate solid waste planning guidelines.

The local planning agency designation process has brought some interesting results. Although 8 States have neglected to identify any local agency, 32 States have placed this responsibility either with a State or substate regional agency or some combination of the two. In eight States, counties or substate agencies will handle the planning. And in only eight States will counties alone have the authority to plan for solid waste management.

By contrast, in 28 States either counties or joint county-city agencies will implement the local plans. We question the wisdom of having substate regional agencies prepare plans that counties will ultimately have to implement.

One of the reasons we question this, Mr. Chairman, is because of the public participation requirements that we have found in the



regulations. In our particular county, this is going to seemingly devise an advisory group of some 200 members for a six-county region, and it is going to be just a little unwieldy to handle.

It almost goes without saying, Mr. Chairman, that those local governments which will implement solid waste plans are best situated to do realistic planning.

In many States, the designation of State or regional agencies was made by the State government without the agreement of or consultation with county or other local elected officials.

It almost goes without saying, Mr. Chairman, that those local governments which will implement solid waste plans are best situated to do realistic planning. In 28 States either counties or joint city-county agencies will be responsible for implementing solid waste plans. By implementation we mean the administration of collection, disposal, siting of sanitary landfills, resource recovery, and other actions to meet Federal regulations. Regardless of the agency designated for planning, it should only be done with the full agreement of the implementing bodies, which in most cases means counties, and other local elected officials.

We recommend, Mr. Chairman, that first, where local elected officials were not afforded the opportunity to determine the appropriate planning agency, that a redesignation period be authorized. Second, EPA should proceed immediately to issue planning regulations which are directed to the expeditious preparation of management plans which can successfully be implemented. Finally, emphasis should be shifted during fiscal 1980 toward funding local government plan preparation and implementation.

#### FURTHER RECOMMENDATIONS

In the 1980 budget request, EPA has called for a 33-percent reduction in State planning assistance to \$10 million and a gradual phaseout over 5 years. At the same time the budget request was sent to Capitol Hill, a letter went out to all the States from EPA which signalled the end of the local planning process even before it got underway. Assistant Administrator Jorling limited passthrough funds in 1980 and 1981 to assisting the State with the open dump inventory. After 1981 counties are dependent on State resources where the State is committed to local planning. Otherwise the county is on its own to plan and implement solid waste systems. Without the initial planning grants, we doubt the intent of the act will ever be achieved.

While we support increased funding for hazardous waste management, we are concerned with the shift away from solid waste management which flies in the face of the congressional mandates embodied in subtitle D. We recommend that Congress authorize \$40 million for 3 years for the planning program and earmark half that amount, or \$20 million, for local planning.

The mandate to close or upgrade all open dumps will hit many counties with dramatic cost increases. Rural counties in particular need special implementation assistance. We recommend that you retain section 4009 of the act but broaden the eligibility criteria to cover all nonurban counties which do not have the financial resources to convert to sanitary landfill practices. We feel the existing authorization of \$25 million per year is sufficient.

We anticipate the greatest need in rural counties will be for technical services to close dumps and site new landfills. By correcting existing problems and preventing future problems, the money will be well spent. In order to stretch the funds as far as possible, Congress could restrict section 4009 grants to technical services.

Urban counties are also under pressure, not only from the dump closing mandate and sanitary landfill regulations, but from a rapidly diminishing landfill capacity and scarcity of adequate new sites. Urban counties have shown their interest in resource recovery through the commitment of millions of dollars of local funds to the planning and construction of new facilities. In addition, the response from counties to the President's urban policy grants program was enthusiastic. We foresee even greater demand next year. The \$13.9 million EPA requested for 1980 is not sufficient to meet the demand. We suggest EPA set up a loan guarantee program as a separate mechanism to assist projects which use proven technology. The demonstration grant program should remain at the authorized level of \$15 million per year. However, if the resource recovery aspects of the act are ever to be realized, the \$15 million authorization is clearly inadequate.

We strongly recommend an accelerated research and development effort in resource recovery which would include source separation and other small-scale approaches, and which would emphasize the marketing of recovered resources. We favor research into the problems that existing plants are having. We feel an emphasis on problem solving with existing technologies will reap the largest dividend.

#### NACO POLICY

The issues I have discussed have been considered at length by Naco's Environment and Energy Steering Committee on which I serve. At our last meeting early this month, we adopted a resolution on solid and hazardous waste management which was then adopted by the Naco board of directors. With your permission, I would like to request that this resolution be made part of the record.

Mr. FLORIO. Without objection.

Ms. JOHANNSEN. I feel that it summarizes our major concerns and indicates the direction we would like to see Federal programs take.

This concludes my formal remarks. I would very much like to express my appreciation and to answer any questions you might have.

[The following material was received for the record.]

# National Association of Counties

Offices • 1735 New York Avenue N.W., Washington, D.C. 20006 • Telephone 202/785-9577

## Resolution on Solid and Hazardous Waste Management

Environment and Energy Steering Committee

March 11, 1979

Whereas, the dump closing mandate and sanitary landfill regulations authorized by the Resource Conservation and Recovery Act of 1976 will have a severe impact on rural counties; and

Whereas, states are requiring counties to develop solid waste plans without providing financial assistance to help prepare such plans; and

Whereas, many landfills and dumps containing hazardous waste pose a serious threat to human safety and health; therefore, be it

Resolved, the Congress should:

- Provide financial and technical assistance to rural counties to meet regulations promulgated under the Act;
- Provide financial assistance to counties to prepare and implement solid waste management plans;
- Establish a federal fund to mitigate and correct pollution problems caused by hazardous waste disposal;
- Establish a federal mechanism which would provide long-term inspection, maintenance and liability insurance for permitted hazardous waste sites;
- Support the research and development of technologies, which, through neutralization, destruction or recovery processes, reduce the need for hazardous waste landfill disposal capacity;
- Provide continued financial and technical support for county resource recovery projects; and
- Intensify technical research and market development for recovered resources.

Adopted by the NACO Board of Directors March 13, 1979

Mr. FLORIO. Thank you.

Mr. Santini.

Mr. SANTINI. Thank you, Mr. Chairman.

I don't know, Supervisor Johannsen, if you were present when I shared some of my preliminary observations with the representative from EPA. Were you?

Ms. JOHANNSEN. Yes; I was.

Mr. SANTINI. You can gather, then, that I am initially sympathetic with the plight of the counties, particularly the rural counties, in this context.

Ms. JOHANNSEN. I might share an example in our area with you. We have a chemical laboratory about 100 miles to the north of us. They have been depositing a large amount of their waste for 10 or 15 years. They have a site approximately 15 acres, and it has been filled something like 100 feet deep. We are now finding 100 miles to the south, traces of these chemicals in our water. The company is worth about \$5 million.

EPA has estimated it is going to take \$50 million to clean the thing up. The county has a population of about 25,000 people, and certainly not anywhere near an ability with the property tax to clean that up.

Mr. SANTINI. I certainly realize the fiscal dilemma created here. Our Nevada rural situation may be somewhat more aggravated, perhaps, than others in the Nation, given the very limited private property tax base on which all services of county government are provided, including roads, sewage, hospitals, law enforcement and fire protection.

It just seems an incredible additional burden, at least to some of our rural county representatives who have for many, many years been operating on extremely limited budgets, to now be required to put in a sanitary landfill which might cost a quarter of a million dollars. This is more than their annual budget.

In the example that I shared, \$50 million would certainly be many times over that particular county's budget capacity to respond. Has Naco been at all successful in their appeals to the Department of Commerce to enlist their interest in this subject area?

Ms. JOHANNSEN. That I cannot tell you, but we have one of our staff members here and perhaps he can answer that for you.

Mr. CROKE. For the record, my name is Mark Croke and I am a legislative representative with the National Association of Counties. Our concern so far has not really addressed itself to the Department of Commerce's role in solid waste. We have been more concerned with EPA's actions, and the existence of these Federal mandates which impose these costs on county governments, and particularly rural governments.

The extent of this problem, not only in Nevada and a lot of rural areas, is such that we really have not had the opportunity to concentrate on what Commerce's role has been. We are merely trying to help our people get over this burden which we see as imposed by the Federal Government.

Mr. SANTINI. Were you present this morning when Mr. Steffen Plehn, Deputy Assistant Administrator of the Office of Solid Waste, testified?

Mr. CROKE. Yes, sir, we were.

Mr. SANTINI. I shared this issue with him. Essentially he responded that it was a matter of State planning direction and that therefore the State could mitigate or moderate the plan to recognize the local government interest. I would appreciate your response to that testimony.

Ms. JOHANNSSEN. The States, of course, are developing a statewide plan because they have been directed by the Federal Government to do so. They do not always include the local government's ideas of what a State plan might include or could possibly implement. So we do have something of a coordination process there, I guess, all of the way up and down the line.

Mr. FLORIO. Would the gentleman yield?

Mr. SANTINI. Yes.

Mr. FLORIO. Well, isn't that just an indication that the localities and counties should perhaps lean on the States in terms of having more input into the process? Maybe my bias is coming from a relatively small State geographically speaking, but I am not offended by putting a lot of emphasis on the State coordination role. I have seen too many, particularly in the area of sewage treatment facilities, municipalities or counties become involved in planning in a disjointed way, and we don't see proper regional coordination.

Likewise when we are talking about facilities that are going to entail some expenditure of money, and that requires the ability to draw upon a fairly large area for the constant stream of solid wastes, but you almost cannot by definition do that on a town-by-town basis or even a county basis. So that, if in fact the State does not pay attention to the municipalities in formulating its plan, this almost becomes a political problem, because you have inappropriate or insensitive State officials.

But I really don't have any difficulties with the concept of utilizing the State for the overall planning mechanism in terms of formulating what is the appropriate allocation of resources for solid waste treatment or disposal facilities. Is there something I am missing in this whole equation?

Ms. JOHANNSSEN. We are fortunate in Iowa because we have an excellent relationship with both our regional counsels and with our State planning department. Not everyone has that. I guess areas seem to cause problems in size and in topography.

Mr. FLORIO. Don't the States have the information?

Ms. JOHANNSSEN. Even though you are a State and the borders are there, you don't always particularly relate. Sometimes it is cross-connections with different States, the areas that you fit into, just like you do with a water system or a water basin. And people seem to locate in particular areas and solid waste seems to locate in areas like that, too. Hazards seem to cause problems, again, because like this particular landfill I mentioned, the migration is going to follow the topography of the land and the water stream, not the State line. So it takes more coordination than just one State.

Mr. FLORIO. Doesn't it dictate on the side of going even beyond the States?

Ms. JOHANNSSEN. Yes, it does, in many cases.

Mr. FLORIO. So rather than going the other way by providing authority at the local or county level to formulate plans, what we should be talking about is, at a minimum, some State organization, and perhaps bistate organizations, interstate compacts, and things of that sort.

Mr. CROKE. Mr. Chairman, if I could add a little bit to that, the National Association of Counties, by advocating a stronger role under RCRA for local governments, is not saying that the regional approach is a bad one or even that the regional approach might perhaps be the preferred approach in most areas.

What we are saying is that those people who are going to have to put the plan in operation, which are the counties and local governments, should begin this planning process and should begin to make the initial assessment where the information and where the solid waste problem currently is, and then build to a regional level from there, particularly in the area of resource recovery.

As the testimony today has indicated and as I am sure the Chair is quite aware, the economics of resource recovery are best operated on a large scale or regional basis in most cases, unless you are talking about a highly urbanized area. Consequently, a county in a rural area which went to look at resource recovery would as a matter of course have to look on a regional basis, and from that would grow regional cooperation.

But in too many cases we are seeing where a regional body is originally designated, prepares a plan, and when the plan goes to be implemented, it bears little relation to what is actually happening in the counties and municipalities. So, what we are advocating is to reverse that process, begin your planning at the local level and then regionalize, perhaps, your solutions. Perhaps the implementation part of it should be regionalized and the planning begun at the local level.

Ms. JOHANSEN. I would like to follow up on that, Mr. Chairman, just as my own private feeling. I also served as the mayor in my city for three terms. It is a very small city of 2,000 people. We had a dumping operation which was a very few tons per day, like 15 tons per day. Now, the guidelines and standards developed on the Federal level for a landfill that deals with 15 tons a day are exactly those for those which deal with 1,500 tons per day, but the problem is not nearly the same.

If you bury a quantity of 15 tons a day, you don't nearly acquire the density or hazard from the leachate because in the time frame that this dissolves, the concentration is not nearly great enough. And the time frame that enters into the decomposition kind of deals with some of the hazard in itself. But no one has ever done anything about changing those standards, and that is one of the things that I think might help us to deal with the problem in rural as opposed to urban types of communities. But until we can get the rural people involved in the planning—with their operation they have very few staff to deal with their whole operation, as your people well know. They have few resources. They simply don't have anyone to put all this information together for them, to really identify where the problems are.

Somehow the States don't seem to do this because they are used to working with, again, large numbers of staff people. They look at

the more populous areas to begin with, and so the rural solutions don't seem to come out.

Mr. FLORIO. If the gentleman would yield for one related question, does your organization have any experience with the resource conservation and recovery panels of EPA which, by the terms of the statute, are to provide Federal agencies, States and local governments upon request with technical assistance on solid waste management and resource recovery and conservation?

Such teams shall include technical, marketing, financial, and institutional specialists, and the services of such teams shall be provided without charge to State and local governments. Has there been any experience with these panels?

Ms. JOHANNSEN. Yes. We evidently have several panels per year, and my own county people are going to be meeting with some of the people sometime in this next month.

Mr. FLORIO. Has that been a helpful experience?

Ms. JOHANNSEN. I have not personally met with any of them.

Mr. CROKE. Yes. The association does about 30 of these peer match panels a year, and our experience for the most part has been very favorable. It has been very useful.

Mr. FLORIO. Thank you.

Mr. SANTINI. I certainly emphatically concur with the thrust and direction of one of your principal recommendations, that the important feedback from the county and local government level certainly should be heightened. I think it is particularly imperative when you are dealing with counties of low population. These are big problem situations. The mayor sometimes has to type his own letters. The chairman of the board of county commissioners just throws up his hands and says: "My God, here comes the Federal Government again at us from a different direction."

In White Pine County, Nev., some of the residents perceive it as a constitutional entitlement to take out their own garbage to the garbage dump and put it there. They are doing it and their father did it and their grandfather did it. And local government, county commission and city both, in the more isolated rural areas are really beset with a tremendous problem. Creating a mandatory garbage pickup and disposal program would not only violate the Constitution, at least in their minds, but additionally increase costs. The increased cost and the increased involvement of local government in this role of garbage disposal is just completely anathema. They cannot perceive why it is an imperative.

I do think that many of the planners and the rule and regulation makers lose sight of this very real political problem that you have to grapple with at the county level. In some States which have a sensitivity and are attuned to their local governments, it can work very well. Conversely, in other States where the State is used to doing its own thing and to a large extent ignoring the small population centers of the State, it creates considerable difficulties.

Our State has been able to moderate it, but it is by and large due to the fact that with only 700,000 people in the entire State, you can accomplish certain practical ends which would be impossible if you were dealing with a much larger population.

One of your other basic recommendations is—stated in the euphemism used on page 2: "We also anticipate adequate resources to

meet this standard." The adequate resources you are referring to are dollars, and the dollar dilemma besets each and every agency of Government these days.

Ms. JOHANNSEN. But the problem is, sir, when you mandate things, the resources need to follow with them. As you well know in your own area, there are not any other resources to be developed. In the State of Iowa, we have a limitation on the dollar factor we can raise in a succeeding year. If you mandate something, we are left with where to get it. We cut out something whenever you mandate something else.

Mr. SANTINI. Supervisor Johannsen, it is so much easier to write the law than raise the money.

Ms. JOHANNSEN. But we are limited by the law in raising the money. It is not that we wouldn't do it otherwise.

Mr. SANTINI. I don't know that additional funding would be a realistic expectation. I can well understand your plea for it. I think the emphasis that you placed on the increased role of county representation in the statewide decisionmaking, however, should be a practical result.

To your knowledge, does the 1976 act mandate the role which local government is to play in the rule and regulation implementation at the State level?

Ms. JOHANNSEN. We were to be included, and it seems to me that when we did get notice of planning, that we got notice of hearings on the plan one day before the hearings were going to be held, which makes it a little difficult to get much to them.

Mr. SANTINI. Your individual Iowa experience was that the role in drafting the rules and regulations of the local government was rather superficial at best?

Ms. JOHANNSEN. Well, I guess the timeframe was just too short to get the job done. We were able to work with our people in Iowa and get it taken care of, but I am not sure all of the other States have that same good relationship.

Mr. SANTINI. In your testimony you indicate that in eight States the local government has no role. Is that correct?

Ms. JOHANNSEN. Yes.

Mr. SANTINI. Returning to my question, does the 1976 act contain specific language that would either mandate or recommend that the local government have a specific role in the drafting of rules and regulations?

Ms. JOHANNSEN. Does it?

Mr. CROKE. Yes, it does have such a direction; however, it is vague to the point of being almost useless, in that a State can show any type of a public hearing, or notice 1 day in advance as sufficient to having involved locals.

Mr. FLORIO. If the gentleman would yield, it seems to me the appropriate remedy is to contact EPA, and in the certification process, as EPA is required to certify the State plan, if the point is made that the role of the localities as required under State law has not been honored in any but the most superficial way, it would be an appropriate point to raise when EPA is certifying the State plan.

Mr. CROKE. We appreciate that and we do work with EPA, and we intend to beat them about the head quite a bit about this point.



A number of States have tried to take action to pass through funds to local governments which EPA has stopped. Particularly Ohio and North Carolina come to mind as two States which wanted to pass planning funds through to their local governments and EPA would not allow them to get involved that directly in the plan.

So, it is as if they hear us but they don't hear us. They are willing to allow some kind of local role, but the type of role, even in these cases, where the State perceives local government should exercise, EPA has decided not to allow.

Mr. SANTINI. It would seem to me that at the very least, given your testimony and recommendations, that this committee could communicate directly with the Environmental Protection Agency, urging that on the basis of the evidence you shared with us, it would be most appropriate for the Environmental Protection Agency itself to scrutinize individual State plans to insure that there is a meaningful role in a consulting vein afforded the county and local government entities who are going to have the responsibility, as you described in your testimony, of implementing everything mandated. And if eight States have actually excluded any local government, then there is certainly a contradiction of the spirit of the legislative enactment if not the letter of that enactment. It should be rectified.

Ms. JOHANSEN. We would certainly appreciate the committee's doing that.

Mr. SANTINI. Mr. Chairman, would that be appropriate, in your judgment?

Mr. FLORIO. Yes, a communication to EPA requesting what their policy is with regard to this. If you would see fit to provide us with the names of the eight States, we could specifically request an evaluation by EPA in those specific instances.

Mr. SANTINI. Thank you, Mr. Chairman.

Mr. FLORIO. We certainly thank you very much for your testimony, for your assistance, and we look forward to working with your organization as we attempt to improve this law. Thank you.

Ms. JOHANSEN. We appreciate the opportunity to be here.

Mr. FLORIO. Our last two witnesses will be part of a panel. The participants are Mr. Eugene Wingerter, who is the executive director of the National Solid Waste Management Association, and Mr. Edward Merrigan, counsel for the National Association of Recycling Industries. Gentlemen, we welcome you to the committee.

As was stated with the other witnesses, we have copies of your full statement. Those statements will be made a part of the record, and we ask you to proceed in a summary fashion so that we can conclude today's business. We ask you to identify yourself for the record, as well as your colleague, and proceed as you see fit.

Mr. Wingerter.

**STATEMENT OF EUGENE J. WINGERTER, EXECUTIVE DIRECTOR, NATIONAL SOLID WASTES MANAGEMENT ASSOCIATION, ACCOMPANIED BY CHARLES JOHNSON, TECHNICAL DIRECTOR, AND EDWARD L. MERRIGAN, COUNSEL, NATIONAL ASSOCIATION OF RECYCLING INDUSTRIES, INC.**

Mr. WINGERTER. Thank you, Mr. Chairman.

I am Eugene Wingerter, executive director of the National Solid Wastes Management Association. With me today is Dr. Charles Johnson, technical director of our association. We would both like to share our remarks in summary fashion with the committee.

Mr. FLORIO. Thank you.

Mr. WINGERTER. First let me say that we feel the basic composition of the Resource Conservation and Recovery Act is sound and that the act should be improved and extended for another 3 years. We would like to focus our comments this morning on two elements of the act, subtitle D and subtitle C. I will summarize briefly our concerns about subtitle D first.

It is our impression that the open dump inventory as conceived by the Congress in 1976 considered approximately 20,000 disposal sites throughout the United States and envisioned a kind of wind-shield survey of these sites in an attempt to identify the open dumps and initiate actions that would lead to the closure or up-grading of these dumps.

Since that time, I think EPA as well as the States have gained a broader insight into the scope of the population of land disposal sites covered under subtitle D, and today I think we are looking at a number on the order of 100,000, possibly up to 200,000 sites if we include all of the industrial pits, ponds and lagoons that would qualify as land disposal sites under subtitle D.

We recommend at this time that because of the complexity of the criteria for inspecting these sites and the large number of sites, that the Congress direct EPA to first identify the total population of land disposal sites that would be encompassed under subtitle D. We do not have this total census or total population at this time.

Once the total population is identified, then the sites should be prioritized in terms of the degree of threat they present to the environment and the public. Once the prioritization is complete, then the survey can get under way and the sites should be inspected and classified in accordance with the prioritization scheme.

If such an approach is not developed, we feel there is a strong likelihood that many of the sites which pose serious threats to the environment may never actually be inspected in the survey. The prioritization scheme would offer a chance to have the uniform and consistent survey dealing with the most consistent problems in their order of importance.

Perhaps more important to our comments this morning are the recommendations we wish to make with the subtitle C program. First, let me say we were enthused with the enactment of the subtitle C program, and we feel that it offers for the first time a national program for regulating hazardous wastes from cradle to grave. There are several technical amendments which should be considered for subtitle C, and one major amendment.

I would like to focus on the major amendment first, which addresses the question of the financial responsibility for hazardous waste sites during the post-closure period. EPA has promulgated regulations that address financial responsibility during the operating period for sites permitted under the acts. These regulations require the establishment of a closure fund, a closure trust fund, as well as a trust fund that would be available to monitor and maintain these sites during the postclosure period.

But EPA for the past 2 years has looked to the private insurance industry as a potential source of liability coverage for these sites once they are closed. I think it has become evident in the last few months to EPA, as well as to those in this field, that there is no private insurance industry available to cover the long-term liability of closed hazardous waste sites.

For this reason, our association developed a proposal which would create a Federal liability insurance fund paid for entirely by private money contributed through the operation of the hazardous waste sites permitted under the act. This fund would be a fund available to protect the public in perpetuity should there be any damages, both to property or to persons, occurring as a result of some unforeseen or inadvertent action that might occur at these sites during the closure period.

The fund would be available only for the sites permitted under the act. It would not include abandoned sites or sites which were not qualified to have such a permit. The other aspect of the proposal, which I will append to my testimony this morning if I may, sir, as well as the recommendations in the GAO report issued in December of last year that addressed this question.

The other aspect I think is most important for consideration at this time is that without such a fund, there will be no mechanism to protect the public in perpetuity or in the long term, if I can use that term, from the sites that will be permitted under the program. It is the missing link or the missing gap in the legislation as we see it.

I would like to ask Dr. Johnson if he would also cover the other amendments under subtitle C.

[Testimony resumes on p. 308.]

[Mr. Wingerter's prepared statement follows:]

STATEMENT OF EUGENE J. WINGERTER, EXECUTIVE DIRECTOR, NATIONAL SOLID  
WASTE MANAGEMENT ASSOCIATION

Good morning, Mr. Chairman and members of the committee. My name is Eugene J. Wingerter. I am Executive Director of the National Solid Wastes Management Association, the trade association representing more than 2,000 private companies engaged in the collection, processing and disposal of solid waste and hazardous waste. I am grateful for this opportunity to share with you the perspective of the waste management industry on the future directions of federal waste management legislation.

Although implementation of the Resource Conservation and Recovery Act of 1976 has fallen behind its statutorily-imposed timetable, the prospect of a constructive federal program with positive reinforcement to sound waste management programs has promoted better waste management practices in this country. The act should be improved and extended for another three years, at least.

The more rapidly we can assure the implementation of modern disposal techniques, the sooner we can put behind us the environmental insult which some past practices have inflicted. We read in the papers and see on TV the stories about the Love Canal and the Valley of the Drums. The U.S. Environmental Protection Agency tells us that there are other examples of blatant mismanagement which are yet to come to public attention.

Let us remember that RCRA is to assure that these past practices of mismanagement are not perpetuated into the future. The sooner we can assure that currently-generated wastes are directed to proper treatment and disposal facilities, the sooner we can assure the people of the United States that we have a program in place which will protect both their living environment and their standard of living and lifestyles. We strongly urge the committee to press forward with the RCRA program and not dilute its essential elements -- strict environmental standards for all disposal and the regulatory program for hazardous wastes -- by sharing the limited resources available with other lower priority programs.

There are several areas which we feel Congress should address legislatively as part of the reauthorization of the Resource Conservation and Recovery Act. I will mention four areas today and would be happy to work with you and your staff in addressing any of the issues which you feel may require an amendment to the present legislation.

Let me first address the problems which have arisen implementing Subtitle D. It should not be surprising that the U.S. EPA has failed to comply with the statutory deadlines of RCRA. In 1976, the universe of the problem was generally conceived to be about 20,000 disposal sites. The concept of an inventory was conceived as a "windshield survey," that is, a survey based on superficial, visual inspections, which would determine such things as litter control, access limitation, and cover practices. But the definitions and the mandate of RCRA has necessitated a much larger and more complex implementation effort.

Nevertheless, significant progress has been made. Detailed criteria determining acceptable disposal practices are very nearly ready. Guidelines for implementation of state programs are also nearly ready to go. And, the evaluation procedure for testing sites to determine their environmental suitability is being developed.

The state solid wastes management programs, during the same period, have been improving dramatically. Among the 14,392 disposal sites accepting municipal refuse, only about 3,000 will need to be upgraded or closed according to a January, 1979, survey of national disposal practices conducted by Waste Age magazine.

The budgets and regulatory capacity of state solid waste agencies is improving rapidly, in part as a response to the anticipated responsibilities which states will undertake as part of the RCRA program.

Instead of the original 20,000 sites which most experts felt would be included in the RCRA program, the U.S. EPA presently calculates that between 100,000 and 200,000 facilities will be covered. The dramatic increase results from the inclusion of industrial pits, ponds and lagoons as disposal sites for wastes defined under RCRA which must be included in the regulatory program. Even this enormous number might be considered by one who has read the statute closely as a conservative interpretation of EPA's responsibilities. Under the act, EPA was directed to upgrade "open dumps." The term "open dump" means any facility or site where solid waste is disposed of

which is not a sanitary landfill ... and which is not a facility for disposal of hazardous wastes." This could be taken to indicate that every acre of civilized America, certainly including the streets of every American city, is a candidate for listing as an "open dump." EPA has adopted a more limited interpretation of Congressional intent, but the scope of the inventory is so large that priorities must be established.

The vast goals and the limited resources available to implement the RCRA program, however, point out the essential shortcoming of the Subtitle D program. The principle intent of Subtitle D is to assure that all wastes be handled in an environmentally approved manner. We feel that the original legislation should be amended to reflect Congressional priorities on which the EPA should be directed to focus its resources. Spread too thinly, the program will continue to be bogged down in paperwork and unable to achieve its objectives. Without providing vastly increased resources, it would be both unfair and unrealistic to expect the EPA to complete an inventory of each and every land disposal site in the nation with an equal thoroughness.

The inventory process is already far behind schedule. We suggest that Congress take steps in the reauthorization of RCRA to accelerate the process of closing open dumps by attacking the problems where they are most serious first.

Congress should redirect the inventory by amending the charge given to EPA in the matter of listing all open dumps. Rather, EPA should be directed to publish a list of all land disposal sites in the nation. This would entail no judgment as to whether the site met the criteria for being classified as an acceptable sanitary landfill. Next, Congress should direct EPA to establish

priorities based on the potential threat which each site represents. The criteria would be used to rank all sites within each state in the order of their greatest potential threat to least potential threat. Again, this ranking would represent no judgment on the adequacy of the site in meeting the established environmental standards. The priorities would, rather, be based on such factors as the geology and hydrology of the site, the size and remaining life of the facility, the proximity of the facility to people, and the types of wastes which are deposited in the facilities. Such a ranking of priorities is presently being developed by EPA as part of its study of lagoons in connection with the Safe Drinking Water Act. The final step, then, would be to have the EPA direct that the inventory be conducted within each state in priority order, first surveying those sites with the greatest potential threat while reserving less threatening facilities for later in the inventory process.

Amendments along this line would assure that the process could proceed quickly. A list of all sites in most states could be compiled immediately from existing records since publication of such a list would not entail judgment of anything other than that the facility accepts defined solid wastes. Provision could be made for citizens to add sites to the list. Such an amendment would also maximize the cost-benefit impact of the inventory by addressing the most potentially serious situations first; assuring the public that the survey has direct benefits to them. Also, since EPA is already developing the criteria for determining priorities as part of its implementation effort under the Safe Drinking Water Act, and since the criteria for establishing whether a facility is an "open dump" or a "sanitary landfill" it can reasonably be expected that EPA could carry out such an altered program without any undue delay.



Such an alteration of the approach to the open dump inventory would also protect the integrity of the process from any further budgetary constraints which might be imposed by either Congress or the Administration.

Let me turn my attention now for a few moments to the question of the hazardous wastes program under Subtitle C. I would like to comment briefly on the technical change which will be required to ensure fair treatment of new facilities as they come on line and then address two more comprehensive concerns which would be appropriate to address in reauthorization or in a subsequent amendment to RCRA.

A technical amendment to RCRA to which I referred concerns the "interim status" provisions of Section 3005(e). That section accords interim status to "any person who owns or operates a facility required to have a permit under this section which facility is in existence on the date of enactment of this act" (emphasis added). The problem is that a number of new facilities which we expect will satisfy the final requirements of RCRA have come into existence since October 21, 1976. The present language of Section 3005(e) would deny interim status to such sites. This means that, following promulgation of the regulations (at the end of this year), those facilities would have to make application for a RCRA permit and close their doors for a period of at least one year and possibly as many as 3-5 years while their permit application goes through the protracted procedure required to secure approval. The problem could be particularly pronounced in the state of California where several new and good facilities have been opened

in the last two years. We suggest that Congress rectify this situation by amending Section 3005(e) to extend interim status to any person who operates a facility which is in existence on the date of promulgation of the final regulations. Such an amendment would be entirely within the intent of Congress in enacting RCRA.

In another area, it has now become obvious, after two and a half years experience with RCRA, that there is a gap in the public protection afforded by Section 3004(6) requiring hazardous waste facilities to assure financial responsibility. EPA, in accordance with RCRA, has developed proposed regulations assuring that operators of hazardous waste facilities have the financial wherewithal to deal with problems which their facilities might cause. These regulations include requirements that companies have sufficient reserves to cover damages and corrective actions during the facility's operating life and requirements that each operator create a trust fund to assure that monies be available into the future to pay the cost of routine care of maintenance of the site. EPA had hoped that companies could be required to purchase insurance against any environmental damages which these facilities might cause in the future, but, we now know, that such insurance is unavailable from commercial companies and unlikely to be offered in the future.

The public deserves this protection. While we expect that the new and stringent regulations of RCRA will largely prevent any future incidents such as the Love Canal, we also know that the unexpected sometimes occurs. It is conceivable that things that we do not know about wastes today might result in the eventual discharge of contaminants from even the sites which we deem superior by today's standards. We do not expect that this will be the case.

On the other hand, handling these hazardous wastes is a societal imperative. It makes absolutely no economic sense, and no environmental sense to design a multitude of facilities to handle these wastes. That means that certain communities will be asked to host disposal facilities wherever society can assure that its wastes are properly managed. Society as a whole owes these communities every assurance that in the eventuality that funds will be required to correct environmental damage or compensate victims of any toxic discharge, that those funds will be available and forthcoming. RCRA does not contain provisions which provide this assurance.

We recommend that you amend RCRA to create a national hazardous wastes insurance fund administered by the federal government but funded by contributions from those who manage hazardous wastes. We have devoted considerable time and attention to developing this proposal and discussing it with industry and environmental groups and the U.S. EPA. After a careful study of this problem, the U.S. General Accounting Office reported to the Congress that it recommended legislative creation of a fund modeled on that which we have developed. I will append a copy of the GAO report and a summary and complete text of proposed legislation to accomplish this objective to my written statement and ask your permission that it be made part of the permanent record of this hearing.

Creation of such a fund which would be available to pay, without limit, the damages which might be awarded by the courts or by the administrator of the fund will go a long way towards reassuring citizens living near these facilities that they are protected not only by the stringent standards which

these facilities will be required to meet, but by the financial capacity to redress any damages which may occur. I would like to re-emphasize that these funds will be entirely off-budget, contributed by our industry and that this proposal entails no financial outlay by the federal government nor any residual liability to the government. In the event that claims made against the fund exhaust available monies, the fund administrator will borrow money at interest and increase the surcharge to replenish the fund and repay any borrowed monies.

As the same GAO report notes, the second "serious question that needs to be resolved" concerning disposal of hazardous wastes is that of finding a means to bring the necessary facilities into being. No matter how strict the regulatory program tracking wastes "cradle to grave," if there is no properly designed facility to receive the wastes, the entire program will fail. Complicating the matter, this has become a sort of chicken and egg situation. Lacking facilities, there is little incentive to create the manifest system and dedicate dollars to enforcing the tracking program. On the other hand, lacking an effective enforcement program, there is little incentive to make the multi-million dollar investment in new facilities. Proper treatment and disposal in permitted facilities will cost more than the initial cost of promiscuous dumping of these wastes in the woods, storm sewers or along the side of the highway although the ultimate cost of such actions is enormous. Unless an enforcement program requires these wastes be properly handled, the economic incentive for the generator discourages proper disposal.

Let me quote an excellent capsule of the situation from the same GAO report:

The development of environmentally sound disposal facilities is essential to the successful implementation of the hazardous wastes regulatory program mandated by the Resource Conservation and Recovery Act of 1976. This capability does not now exist. There is currently a shortage of suitable disposal sites and the problem will become even more acute as additional wastes are determined to be hazardous. Existing sites are closed because they do not meet environmental requirements, and wastes which are being disposed of on private property are taken to offsite facilities. Effective implementation of the program cannot be accomplished unless additional treatment, storage, and disposal capacity can be developed.

"The absence of an enforceable hazardous wastes program and public opposition to siting new facilities - not technical or economic factors - are inhibiting the expansion of commercial capacity. Although timely implementation of the federal hazardous wastes program should provide the incentive for creative new capacity, the siting problem still must be overcome. Several solutions have been suggested or tried, including siting facilities on public land, however, all had encountered similar problems."

In addition, it would be fair to say that the siting problem more seriously affects the creation of offsite disposal capacity. Onsite facilities have generally been "invisible" because they are just a small part of a large industrial facility. Offsite facilities, on the other hand, are readily identified and become the focal point for public concern. The siting problem is exacerbated, then, if the expected shift from onsite to offsite disposal continues. As the GAO reports:

"In 1976 the EPA Hazardous Wastes Management Division and Director reported that 82% of the hazardous wastes generated in 12 major generating industries was treated or disposed of on the wastes generators' property and assumed that this would remain the same through 1983.

However, onsite disposal generally has not been any better than offsite disposal. Based on the EPA case studies, 63% of the damages incidents were attributable to onsite disposal. Instead of incurring the additional cost to comply with new RCRA treatment and disposal standards, some companies may decide to change to off site hazardous wastes management facilities."

According to a 1977 EPA-funded study, the lack of land near plants in urban areas, public resistance to establishing disposal facilities, and difficulty in locating sites to meet the requirements for hazardous wastes disposal will tend to force individual plant operators towards offsite disposal by contractors.

As the EPA also notes, however, "public opposition is the major barrier to expanding disposal capacity." We strongly urge the Congress to resolve the siting bottleneck and thus assure that adequate capacity exists to accommodate the expanded wastes stream which will be directed to proper facilities under RCRA.

Specifically, we recommend that Section 3005(c) be amended so that the EPA, which is given the responsibility to assure that all these wastes reach proper facilities, be given the authority to assure that such facilities do, in fact, exist to receive these wastes. Under RCRA, where a state does not elect to pursue certification to administer Subtitle C, the U.S. EPA will have direct responsibility for operating the program in that state. In order to accomplish its mandate, EPA must be able to override any state or local laws which frustrate the siting of these badly needed facilities. Therefore, EPA should be granted power to issue preemptive certifications of approval for these facilities. It follows, then, that in states electing to manage their own programs, the RCRA requirement for a "substantially equivalent"

program would require the state to enact legislation which would prevent the frustration of siting by local parties.

Such an amendment to the act might be placed following the first sentence of Section 3005(c). As a suggestion, language from a proposed law in the state of Florida might be incorporated into RCRA at this point.

"No political subdivision of the state shall adopt or enforce any action, rule, ordinance or standard which will operate to prevent the location or operation of a hazardous wastes transporter, processor, storer, or disposer who is issued a permit."

It is the experience of our industry and regulatory officials, that local political decision making in this matter frustrates the ends of rational hazardous wastes management. Only by assuring that the siting decision is reached on the basis of a technical evaluation of the suitability and need for the facility can we overcome this barrier to assuring that adequate disposal capacity exists in this country to accomplish the objectives of RCRA. We strongly urge you to incorporate this recommendation in your bill reauthorizing the Resource Conservation and Recovery Act of 1976.

That concludes my formal statement, I will be pleased to respond to any of your questions. Thank you again for this opportunity to share the viewpoint of our industry with you.

Mr. JOHNSON. Good morning. My name is Charles Johnson. I am technical director of the National Solid Wastes Management Association.

There are two other points which I would like to cover very briefly this morning. The first is a technical point that has come to our attention rather recently. When the Congress passed the Resource Conservation and Recovery Act 2½ years ago, it correctly recognized that there would be an interim period during which time the regulations would be under development and the permitting programs for hazardous waste facilities would be under construction.

They correctly provided an interim status for those sites which were in existence at the time the act was passed, this interim status, to be available in continuity, provided those sites were not providing any immediate threat to the environment. It was felt that this would be the wisest action, rather than having a period of time in which there was essentially no facility available.

Unfortunately, the regulations have taken much longer to develop than anyone would have imagined, I believe, and during the period of time, 2½ years, there have been a number of sites permitted under existing State legislation and regulations.

Now, a literal reading of the act would indicate that these new sites which have been permitted in the last 2½ years are not eligible for this interim status, and therefore our recommendation is that the interim status be made available to those persons who own or operate facilities in existence at the time the regulations are finally promulgated, which presumably will be later this year.

Mr. FLORIO. What aspect of the law do you rely upon in your representation that these new facilities licensed by States will have to ultimately be in compliance with the Federal regulations and will not be eligible when those State regulations are harmonized with the Federal regulations, which are just now being published?

Mr. JOHNSON. We recognize any site that has been permitted in the last 2½ years will have to comply with either the Federal or State regulations, whichever are in effect at that time. It is our belief that most of the sites, and perhaps all, that have been permitted in the last 2½ years have been permitted with the idea that they would be in compliance with what would likely be the regulations. Of course, there is a chance that some may not, and those, of course, would have to be closed.

We feel that the majority, at least of the ones we are aware of, will be permissible under the new Federal program.

Mr. FLORIO. I thought I heard you say that a facility that was permitted 10 years ago in the State will be eligible for the interim status, but that, in effect, something permitted in the last 2½ years through some operation of the law could not be eligible for interim status.

Mr. JOHNSON. That is what one obtains from a literal reading of the act.

Mr. FLORIO. We would be happy to receive from you reference to the part of the act you are concerned about so that we can examine it.

Mr. JOHNSON. It is contained in our formal testimony, Congressman.



Mr. FLORIO. Thank you very much.

Mr. JOHNSON. The second matter I will refer to is also in the area of siting. I think we are all very concerned that we may have a regulatory program, good regulations, but without any sites available we are not going to have effective hazardous waste management. I think the problem is well stated, and if you will indulge me, I will read one paragraph from a recent GAO report.

The absence of an enforceable hazardous waste program and public opposition to siting new facilities, not technical or economic factors, are inhibiting the expansion of commercial capacity. Although timely implementation of the Federal Hazardous Waste Program should provide the incentive for creating new capacity, the siting problem must be overcome. Several solutions have been suggested or tried, including siting facilities on public land; however, all encountered similar problems.

It is fair to say that the offsite facilities operated by our members are impacted more than the onsite facilities operated by generators on their own property. After all, our facilities are visible. They are advertised as waste management facilities, whereas a generator disposing of materials on his own property generally does not advertise that on his front gate sign.

Therefore, our industry is particularly impacted when it comes to obtaining new facilities, and yet, according to new estimates by both GAO and EPA, the shift of wastes from onsite to offsite facilities is likely to be increased because of the impact of RCRA, primarily because onsite facilities are seldom chosen on the basis of their waste-disposal capacity. So the public opposition is a major barrier to expanding disposal capacity.

We think there is a solution needed here, and we do make a specific recommendation. We recommend that the States, in order to have their programs qualify under subtitle C, have some provision whereby the State takes the responsibility for permitting facilities and not be subject to veto arbitrarily by local governmental entities or officials. Specifically, there is a provision in the proposed Florida State hazardous waste management bill that might be incorporated into section 3005 of RCRA. I will read it.

No political subdivision of the state shall adopt or enforce any action, rule, ordinance or standard which will operate to prevent the location or operation of a hazardous waste transporter, processor, storer, or disposer who is issued a permit.

And I presume they mean a permit by the State in that case.

It is our experience that only if a State can issue a permit and not have it subject to being overridden by local officials will there be any permits for offsite facilities.

Thank you.

Mr. FLORIO. Mr. Merrigan.

#### STATEMENT OF EDWARD L. MERRIGAN, COUNSEL, NATIONAL ASSOCIATION OF RECYCLING INDUSTRIES, INC.

Mr. MERRIGAN. Thank you, Mr. Chairman.

I appear today, as you know, Mr. Chairman, as counsel for the National Association of Recycling Industries. NARI, being the National Association of Recycling Industries, is not a new association. It was formed more than 65 years ago. We consist of about 850 firms located throughout the United States, all of which are engaged in either the collection, processing or industrial utilization, the actual uses of recyclable material.

We hear so much about what can be done about solid waste. If you will bear with me for a minute, let me tell you what is being done with solid waste today. The industries represented by NARI recover millions of tons of recyclable ferrous and nonferrous metals. That includes iron, steel, copper, brass, aluminum, lead, zinc, nickel, stainless steel, wastepaper, textiles and rubber from solid waste streams from all parts of the United States.

Currently we recover about 40 to 50 million tons of ferrous scraps, about 12 million tons of paper—the Garden State Paper Co., who testified, is one of our members—and close to 3 billion pounds of textiles each year. Thousands of tons of rubber also move through the recycling process.

So that the committee will understand the significance of this to the American economy, let me point out that 40 percent of the Nation's copper today is derived from recycling. Half of the lead comes from recycling, 25 percent of our aluminum, 14 percent of our zinc, and about 20 percent of our paper and paperboard. It is significant to remember that right after World War II, that figure was about 40 percent of the paper in the United States came from recyclable paper. So there is nothing new about recycling paper.

In addition to meeting domestic needs, the recycling industry ships surplus tonnage overseas to our trading partners. This export activity helps our balance of payments rather substantially, and of course it expands international business opportunities for the companies who engage in that business.

Thus, right now as we sit here today, and over the last several years, the utilization by industry of recovered materials has had a profound impact on the American economy. If recycling did not exist at the current rate, there would not be enough raw materials to meet national demand today. If we did not have recycling, the cost of raw materials would soar. Our primary resources would be rapidly depleted and the United States would be even more reliant than it is now on foreign imports for many of its basic raw material needs.

Presently, of course, the United States imports large amounts of many metals and all of its natural rubber. The Department of the Interior estimates that within the next two decades we will be dependent upon overseas sources for more than half of all of our basic metal needs. And in the paper area, while efficient management is now being realized in the growth and use of timberland, increased consumer demand in the next few years will create an unprecedented need to develop additional raw material supplies of paper and paperboard production.

So, clearly, when this committee in 1976 passed the Resource Conservation and Recovery Act, you had a very substantial base of experience to operate from. And when you assigned duties to the Department of Commerce and the Environmental Protection Agency under that statute, they were not starting in the wilderness; they were starting with a base that has been growing for the past 50 years, at least in the United States. In fact, recycling can be traced back all of the way to the Revolution.

So we are not talking about something brandnew when we talk about maximum resource recovery, and that is really what we are talking about under RCRA, maximum resource recovery and con-

servation, because we are already doing so much of it today. We are talking about the need to clear up and eliminate the urgent landfill problem, as, Mr. Chairman, you pointed out several times.

In fact, as you know, in the *City of Philadelphia v. New Jersey*, the problem even got to the Supreme Court of the United States. New Jersey was trying to tell Philadelphia they could not bring solid waste across the border into New Jersey, and the Supreme Court decided that that was unconstitutional.

It reminded both New Jersey, New York and Pennsylvania that as the years ahead come and more solid waste is accumulated, that New Jersey will face the problem of sending solid waste to Pennsylvania, Pennsylvania will face the problem of sending solid waste to New York, and New York will send it to New Jersey; and constitutionally you cannot ban the solid waste problem at the State line.

Today industrial recycling conserves not only natural resources in tremendous quantities, but we conserve tremendous amounts of industrial energy. It has been proved not by us but by the Federal Government that industrial aluminum recycling conserves 96 percent of the energy to make the same aluminum products from bauxite. When you remember bauxite is 95 percent imported from overseas, and a nice place like Jamaica where we used to love to go to swim is now a cartel for bauxite, you can understand the dual importance of resource recovery in the aluminum area.

Copper recyclers conserve 85 percent of the energy. Iron, steel, zinc, lead, and paper recyclers save more than 2 percent of the energy simply to make products from recyclable materials instead of the virgin counterpart resources.

Finally, it has been proved by EPA that industrial recycling results in very significant reductions of both air and water pollution and in the volume of water needed to make the same industrial products.

Now, with that background it amazes us that the Secretary of Commerce and EPA did not appreciate the urgency of administering RCRA in a sort of moral equivalent of war basis in the same way we have looked at the energy crisis. The Secretary of Commerce was told that within 2 years after October 21, 1976, by the statute, that the Department was to identify the geographical location of existing or potential markets for recovered materials.

And since we are using so many recyclable materials, that was not a maze we have been in, really. Had she consulted the industry, we could have told her where the existing markets are because they are all over the United States, and we know where the potential markets are. She was told to identify the economic and technical barriers to the use of recovered materials, and she was told to encourage development of new uses for recovered materials, and finally she was told to develop specifications for secondary materials.

As we stand here today, 2½ years after this law was passed in 1976, the Secretary has failed miserably, unfortunately, in each one of these areas. She has not designated any new markets. She has not even designated the existing markets. She has not identified the economic and technical barriers to the use of recovered materials.

In the period from 1976 to today, just to show that the industry is not waiting, in the freight rate area the Congress passed a statute in 1976 directing the Interstate Commerce Commission to eliminate the freight rate barriers against maximum recycling. The Interstate Commerce Commission, which is not the speediest agency in Washington, completed its investigation and did not do a very good job.

The industry took the case to the U.S. court of appeals. It reversed the Commission. The case went to the Supreme Court of the United States. The court of appeals was upheld, and by April 16 of this year, supposedly, if the ICC obeys the orders of the Federal courts, the freight rates on recyclables should be reduced to what they called reasonable, nondiscriminatory levels.

I don't know what the ICC will do, but while the Secretary of Commerce was doing nothing, the courts and the industry have moved to the point where at least we should be in the final stages of a final decision to encourage the development of new uses for recovered materials. While nothing was done in the Department of Commerce over that period, the industry took the matter to Congress, and last year as part of the energy bill, this committee was the author of a provision that directed the Department of Energy to establish targets for increased industrial recycling for the next 10 years because of the energy saving connotations.

The Secretary of Energy is presently quite vigorously developing those targets, as the statute directed he do. The Ways and Means Committee and the Senate Finance Committee also provided not a full recycling credit but at least an increased investment credit for recycling equipment because of the energy savings, and that credit is now in effect.

Yet, we haven't heard a word from the Department of Commerce regarding either the freight rate problem or the tax problem, and as the Assistant Secretary testified today, they still had not looked at the procurement problem, which is the third barrier to increased recycling. We cannot understand for the life of us why they have so much trouble setting specifications.

NARI, our trade association, developed specifications literally decades ago, and we trade in millions of tons of this material, and even the international markets based upon those specifications. And yet, the Department of Commerce and the Bureau of Standards to this day has not come down with even a proposed set of guidelines for these specifications.

I felt embarrassed recently when the Government Printing Office called me and asked me could we give them specifications. We handed them our book, which is about that thick [indicating] with specifications, and they said: "Well, we can't use these until the Government makes them official".

So I am not trying to unduly criticize the Secretary of Commerce, but I just can't understand why in 2½ years she could not have at least gotten on with that particular part of the law. Frankly, we have asked for appointments for the leaders of our industry all over the country to meet with the Secretary to discuss these problems, and we have found there has never been an availability any such discussions.

On the good side, she did recently protect existing markets for recyclables by turning down what we thought was a baseless request for quotas under the Export Administration Act on scrap iron and steel. That is a very substantial overseas market for recyclables in scrap iron, and there are other overseas markets for other recyclable materials, and she did very definitely turn down any request for the establishment of quotas on those exports.

So I think here we are not singling out the Secretary of Commerce for criticism. What we are saying is that in 1976 the new law which came out of this committee promised so much. And I think a lot could have been done, with or without money, to be honest about it, because almost every agency has a contingency fund. They have some money they hide away somewhere in their budget that could have been used to provide some sort of leadership.

But I think it has not been forthcoming from Commerce because I don't think Commerce grasps the truly urgent need to get on with maximum industrial recycling in the United States.

I am not running EPA for any office today because EPA's performance, in my judgment, under the Federal Procurement Section and under the operations of the Resource Conservation Committee, has been really pathetic. I can remember back in 1970 or thereabouts when the General Services Administration undertook to establish a Federal procurement policy for paper, and in a very short period of time, the GSA, which had a program which was actually virgin oriented almost entirely, required the elimination of the virgin requirements from all of its specifications for paper.

They installed a paper recycling program which I think has operated very successfully and still operates successfully today, although GSA has interpreted the definition of solid wastes within the RCRA Act to be so broad that it includes virgin materials for papermaking, and therefore says that if a company now includes virgin materials such as "broke" in the industrial process, or sawdust from the forest floor, that will now qualify as solid waste materials.

So in a way, the GSA program has been weakened and corrupted by the act, to a degree. However, about a year ago the head of GSA wrote to the Administrator of EPA offering very openly to negotiate a settlement of that problem and to adopt the old definition. To this day, to our knowledge, EPA has never followed through on that, at least to reinstate the GSA program to the old one.

I think the problem in EPA, Mr. Chairman, is that it is devoted to a study, restudy, and then restudy everything basic, to the point we never get on to decisions. I think what we need, either at Commerce or EPA or both, is a sort of OSHA attitude, the Office of Safety and Health Administration, or the way EPA administers the Clean Air Act or the way EPA administers the Clean Water Acts.

We need a sense of urgency in the third pollution area that would not always be put on the back burner, we wouldn't always be studied, and we wouldn't always have to develop a unanimous consensus on everything before we move forward. The true environmentalist doesn't want to give any incentives to the recycling industry, in the tax area, for example, because the true environ-

mentalist thinks that the depletion allowance and the capital gains treatment of trees should be repealed.

Mr. SANTINI. I would like to stop at that point, if I might, Mr. Chairman. As chairman of the Mines and Mining Subcommittee, I have had some particular interest in the element of resource recovery here. And while I certainly have had my individual differences with some of the environmental constraints, I have never understood the environmental community to in any way, shape, or form find themselves opposed to the recycling industry.

If anything, I have felt them enthusiastic endorsers of that industry with the hope and expectation that that could provide an answer to all of our Nation's needs. I am most surprised to hear you say that there is an alienation between yourself and representatives of national environmental groups.

Mr. MERRIGAN. I think we both have the same goals, maximum recycling in the United States, certainly maximum industrial recycling in the United States. However, the true environmentalists—and I am talking about the Environmental Defense Fund, the Sierra Club and those organizations, for whom we have the highest possible regard—feel that in the tax area, if you start with a depletion allowance on ores and a capital gains treatment of timber profits, you should not substitute then or put into effect at the same time a recycling tax credit which equates the treatment of the materials.

In other words, the depletion allowance and the capital gains treatment of profits on timber is about a \$1.5 billion or \$1.7 billion program a year of the Federal Government.

Mr. SANTINI. How does the \$1.7 billion break down? What percentage—

Mr. MERRIGAN. The largest percentage by far is the depletion allowance on ore. Some of it goes to oil, of course. Still a part of that depletion allowance goes to oil even though—

Mr. SANTINI. Do you have an approximate breakdown of the percentages allocated to each of the materials?

Mr. MERRIGAN. I can't remember for each of the materials, but my best recollection is \$500 million on the ores, and \$250 million to \$300 million on the capital gains treatment of profits on timber. The point I am trying to make, Mr.—

Mr. SANTINI. Is that approximately \$800,000?

Mr. MERRIGAN. \$800 million.

Mr. SANTINI. I mean \$800 million.

Mr. MERRIGAN. Yes, and I may be on the low side, because the total cost of the depletion allowance and the capital gains treatment on profit from trees each year is about \$1.7 billion. I am trying to figure out where the oil depletion allowance fits in there since Congress did, as you know, repeal the old oil depletion allowance, and we still have only the actual depletion allowance left.

In any event, what I am trying to say is this. The new markets for recyclables truly are the great big companies that are devoted to virgin utilization, the great big steel companies, the great big aluminum companies, the great big paper companies. Those companies today enjoy these virgin tax benefits. We don't say that that is wrong. We don't have any feeling that that is wrong. If that is what Congress wants to do for the virgin industry, fine.

But we say if you are going to develop new markets for recyclables, then you must move somewhere, either to reduce that somewhat or give us a similar type of incentive from the tax side so that these big companies which build the new mills which cost, say, \$100 million to build will have a bottom line economic incentive to use recyclables in place of the virgin materials.

The true environmentalist that I mentioned before says repeal the virgin allowance; don't put in a recycling credit.

Mr. SANTINI. Do you have documentation to substantiate that? I am amazed by that.

Mr. MERRIGAN. Absolutely. That has been their constant position before the Ways and Means and Finance Committees of Congress for the last 5 years. The other side of the coin are the virgin industries, obviously, that don't want to give up the virgin allowance, so they come in and say don't repeal the virgin allowances. So that leaves the recycling industry between a rock and a hard place. We have those who are committed to the environmentalist and say don't put a new loophole in to make good another loophole; that is, don't add another recycling tax benefit to the virgin benefit. And yet there is not much enthusiasm in the tax part of Congress for repealing the virgin allowances. In fact, the capital gains treatment of the profit on trees was recently reduced by Congress.

So the new markets are not to go out and find a new buyer, necessarily, in most cases for recyclables, but to convince United States Steel, Weyerhaeuser and those companies that instead of chopping down the tree or grinding up the tree each time, you use waste paper or you use more of the old automobiles for your basic raw material.

To do that—and they will have to put in a lot of new machinery in most cases to do that—they will have to have an economic incentive. So the only point I am trying to make is I think EPA, in conducting these studies and restudies and constant studies, is between the true environmentalist on the left and the virgin company on the right. Confusion reigns supreme and it will always reign supreme. It will never be settled. Someday someone will have to take the bull by the horns and say: Well, if we can't repeal the virgin allowances, we must install an economic incentive on the other side.

But this has gone on now in the Resource Conservation Committee for 2½ years and there has been no result. We finally had to settle last year so that we could get on with something on an increased investment credit related solely to the installation of the recycling equipment itself, so that gives the company on the virgin side that wants to put in a new hydropulper, or whatever has to be done to use wastepaper instead of wood, the incentive to at least make that investment.

We think that is going to be very helpful, but what I think we really need in this whole area, both in the Department of Commerce, EPA or whoever is going to run the show, is a sense of urgency, a sense of direction, a sense of not studying everything to death but doing something about it, and finally coming to grips with certainly the Federal procurement thing, which could have been solved a long time ago.

EPA at the present moment is studying only paper and construction materials on Federal procurement, 2½ years after the act has passed. At that pace I would imagine that two decades from now we will all be sitting here wondering when they are finally going to get down to the other materials that go into refuse.

So our goal here is not to criticize EPA or Commerce, but we consider this whole problem to be as urgent as the energy problem. In the next two decades it will be. And if they want to do something about it in advance and stop the crisis situation, they must act now with a sense of urgency. So that, I think, in the final analysis, Mr. Chairman, is our position.

For example, I was told just before I came here today that the State of Maryland has been writing to EPA for the last year asking them to please give them some guidance on how they can get on with procurement programs in their State to be based on a Federal program. EPA keeps replying that they don't have any guidelines yet.

So that, I think, is one of the really serious problems.

[Testimony resumes on p. 328.]

[Mr. Merrigan's prepared statement follows:]



**NATIONAL ASSOCIATION OF RECYCLING INDUSTRIES, INC.**  
 330 MADISON AVENUE / NEW YORK, N.Y. 10017 / (AREA CODE 212) 867-7330

BEFORE THE  
 SUBCOMMITTEE ON TRANSPORTATION AND COMMERCE  
 HOUSE INTERSTATE AND FOREIGN COMMERCE COMMITTEE

HEARINGS REGARDING AUTHORIZATIONS FOR FY 1980,  
 RESOURCE CONSERVATION AND RECOVERY ACT OF 1976

STATEMENT  
 OF  
 EDWARD L. MERRIGAN, COUNSEL,  
NATIONAL ASSOCIATION OF RECYCLING INDUSTRIES, INC.

Mr. Chairman:

My name is Edward L. Merrigan. I appear before the Committee today in my capacity as counsel for the National Association of Recycling Industries (NARI), whose offices are located at 330 Madison Avenue, in the City of New York.

We deeply appreciate the opportunity the Committee has afforded for our testimony at this time with reference to those provisions of the Resource Conservation and Recovery Act of 1976 which prescribe --

- (i) the "duties of the Secretary of Commerce in resource and recovery," and
- (ii) other "federal responsibilities" in the area of "federal procurement."

From the very outset in 1976, NARI and its members throughout the United States verily believed that these provisions of RCRA, vigorously and effectively administered by the Government would assist significantly in the early attainment and maintenance of maximum industrial resource recovery, recycling and conser-



This paper is made from Recycled Material

vation in the United States. Sadly, however, in our view, these sections of the Act have so far been very poorly administered -- even largely ignored -- by those officials charged with their execution. The result, of course, is that very little of any importance has been achieved in a period of almost three (3) years in these areas of vital national concern.

THE CRUCIAL IMPORTANCE OF MAXIMUM RESOURCE RECOVERY,  
RECYCLING AND CONSERVATION OF MATERIALS TO THE UNITED STATES

Before proceeding to discuss more specifically the executive lethargy which has gripped the aforementioned provisions of RCRA since their enactment in 1976, I would like to say a brief word about NARI and the recycling industries it represents throughout the nation.

NARI is the trade association for the nation's metals, wastepaper, textile and rubber recycling industries. Its membership consists of more than 850 firms from all parts of the United States engaged in the collection, processing or industrial utilization of those recyclable materials,

Each year, the industries represented by NARI recover millions of tons of recyclable ferrous and nonferrous metals, including iron and steel, copper and brass, aluminum, lead, zinc, nickel, stainless steel, wastepaper, textiles and rubber from solid waste streams in all parts of the United States. Currently, they recover about 40 to 50 million tons of ferrous scrap, 12 million tons of paper, and close to 3 billion pounds of textiles each year. Thousands of tons of rubber also move through the recycling process.

Thus, the recycling industry already supplies the nation with significant portions of its total raw material needs. Over 40% of the nation's copper is derived from recycling; almost half of its lead; 25% of its aluminum; 14% of its zinc; and about 20% of its paper and paperboard.

In addition to meeting domestic needs, the recycling industry ships surplus tonnages overseas to America's trading partners. This export activity helps the nation's balance of payments position and expands international business opportunities.

Consequently, as of right now, the industrial utilization of recovered materials has a profound impact on the American economy. If recycling did not exist at its current rate, there would not be enough raw materials to meet national demand. The result? Costs of raw materials would soar, our primary resources would be rapidly depleted, and the United States would be even more reliant than it is now on foreign imports for many of its basic resource needs. Presently, of course, the United States must import large amounts of many metals and all of its natural rubber. The U.S. Department of the Interior estimates that within the next two decades we will be dependent on overseas sources for more than half of almost all our metal needs.

And, while more efficient management is now being realized in the growth and use of our timberlands, increased consumer demand in the next few years will create an unprecedented need to develop additional raw material supplies for paper and paperboard production.

Thus, industrial recycling of critical materials is already

a vitally important force in our economy -- but clearly, as this Committee found when it reported RCRA in 1976, the United States is still far from attaining its maximum recycling levels.

And it must attain maximum resource recovery and conservation at the earliest possible date for the following reasons not mentioned above:

1. Over the last few years, the amount of discarded materials has grown to approximately 4 billion tons per year. An annual increase of 8% is anticipated through the next decade -- and this raises the crucial question: What is to be done with these growing mountains of solid waste?
2. The most widespread method of disposal is to landfill discarded materials. However, land has become a scarce resource in the nation's major metropolitan areas. Many of our major cities will soon be out of landfill capacity, so some are already seeking disposal sites outside their territorial limits. Some states, in turn, moved to ban the importation of wastes, but in the case of City of Philadelphia v. New Jersey, 98 S.Ct. 2531 (1978), the Supreme Court recently ruled that New Jersey, for example, cannot constitutionally bar the transportation of Philadelphia's waste materials over state lines.
3. Industrial recycling conserves not only virgin natural resources -- it conserves tremendous amounts of industrial energy. At a time when our nation is frantically seeking ways and means to reduce industrial energy consumption, which accounts for about 40% of our nation's energy demands each year, industrial aluminum recyclers conserve 96% of the energy needed to make the same aluminum products with virgin bauxite; copper recyclers conserve 85%, while iron and steel, zinc, lead, paper and rubber recyclers save more than 60% of the energy otherwise needed to produce the same products from virgin resources.
4. Finally, of course, industrial recycling results in significant reductions of air and water pollution -- and in the volume of water needed to make industrial products.

Thus, this Committee was patently correct when it concluded in its report in support of RCRA in 1976, at page 3:

"The Committee has determined that discarded materials have value in that energy and materials can be recovered from them. In the recovery of such energy or materials, a number of environmental dangers can be avoided. Scarce land supply can be protected. The balance of trade deficit can be reduced. The nation's reliance on foreign energy and materials can be reduced and useful employment can be generated by the construction of needed waste management facilities."

THE SECRETARY OF COMMERCE, HOWEVER, HAS FAILED TO APPRECIATE THE URGENCY AND IMPORTANCE OF RCRA AND ITS AIM TO ATTAIN MAXIMUM INDUSTRIAL RESOURCE RECOVERY AND CONSERVATION AT THE EARLIEST POSSIBLE DATE

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In an effort to attain maximum industrial resource recovery, recycling and conservation in the United States at the earliest possible date, therefore, Congress directed the following statutory mandates to the Secretary of Commerce in RCRA:

A. "Development Of Markets For Recovered Materials.

"The Secretary of Commerce shall within two years after October 21, 1976, take such actions as may be necessary to

- (1) identify the geographical location of existing or potential markets for recovered materials;
- (2) identify the economic and technical barriers to the use of recovered materials; and
- (3) encourage the development of new uses for recovered materials." 1/

B. "Development Of Specifications For Secondary Materials.

"The Secretary of Commerce, acting through the National Bureau of Standards, and in conjunction with

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1/ See 42 U.S.C. 6953,

national standards-setting organizations in resource recovery, shall, after public hearings, and not later than two years after October 21, 1976, publish guidelines for the development of specifications for the classification of materials recovered from waste which were destined for disposal. The specifications shall pertain to the physical and chemical properties and characteristics of such materials with regard to their use in recycling virgin materials in various industrial, commercial and governmental uses. In establishing such guidelines, the Secretary shall also, to the extent feasible, provide such information as may be necessary to assist Federal agencies with procurement of items containing recovered materials . . ." 2/

To date -- approximately two and a half years after RCRA became law on October 21, 1976 -- the Secretary of Commerce has seemingly ignored these clear-cut statutory duties of such critical importance to the United States. More specifically, to the best of NARI's knowledge, information and belief, she has --

- (i) failed to seek or identify any new market for recovered materials;
- (ii) failed to identify, or seek to eliminate, any economic or technical barriers to the use of recovered materials;
- (iii) failed to encourage the development of new uses for recovered materials, and has
- (iv) failed to publish the prescribed guidelines and specifications for recovered materials as mandated by Congress.

All of these executive actions were to be taken by the Secretary by October 21, 1978 -- more than five (5) months ago. Sadly, however, nothing concrete has surfaced, and apparently no "new markets," no "new uses," no elimination of "economic and technical barriers," and no guidelines or specifications are

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2/ See 42 U.S.C. 6952.

on the horizon. Indeed, NARI has requested the Secretary on several different occasions to meet with industry leaders to get these statutory mandates moving, but on each occasion, the Secretary has not been available.

If the Department of Commerce cannot, or will not, perform these statutory duties, they should be assigned to some other agency. If lack of appropriations is the problem, then clearly whichever agency is to do the job, should receive the necessary funding to perform these crucially important national functions.

NARI wishes to emphasize that it is not seeking unfairly to single out the Secretary or the Department of Commerce for criticism. Recently, the Department took courageous, forceful action under the Export Administration Act to deny the steel industry's baseless request for quotas on exports of scrap iron -- and thus it preserved "existing markets" for these abundant waste materials intact.

But plainly, the Secretary has some extremely important functions to perform under RCRA, and so far she does not seem to have grasped the vital importance of complying with the law in this respect. NARI and its members know that, with strong, federal leadership, new markets for recyclable materials can be developed, new uses for recyclable materials can be created and proper specifications can be published in short order. The job can be done; it must be done. Indeed, when this Committee assigned this job to the Secretary of Commerce, it stated in its report, at page 43:

"The Department of Commerce has, because of its long-standing relationship with private enterprise, the channels of communication necessary to encourage greater involvement in resource recovery and use of recovered materials."

Those "channels of communication" must be used now without further devastating delay.

THE ADMINISTRATOR OF EPA HAS SIMULTANEOUSLY ALLOWED THE FEDERAL PROCUREMENT SECTIONS OF RCRA TO FALL VICTIM TO LETHARGIC DELAY, REPETITIOUS STUDY AND RE-STUDY, AND EXECUTIVE DEPARTMENT ATTEMPTS TO RE-LEGISLATE IN THIS AREA

In its report in support of RCRA, this Committee stated, at page 51:

"The Committee believes that the use of federal purchasing power to provide [an additional stimulus] represents a constructive use of government power which has the potential for motivating other levels of government and private industry to use greater amounts of recovered materials.

"To accomplish a greater purchase of items which contain recovered materials this legislation directs that items composed of the highest percentage of recovered materials practicable be purchased unless such purchase adversely affects the maintenance of a satisfactory level of competition or unless the items are not reasonably priced or fail to meet performance specifications.

"Federal agencies will also be required to review their specifications within 18 months of enactment to ensure that such specifications are based on performance and do not discriminate against recovered materials . . . . Revised specifications will require reclaimed materials to the maximum extent possible without adversely affecting the intended end use of the item.

"The Committee anticipates the effect of placing an emphasis on recovered materials in Federal procurement policy to be widespread. Not only will direct purchasing affect products offered by the private sector but Federal guidelines, standards and specifications used in connection with Federal grants and other Federal assistance to State and local governments can be an important stimulus for those governments and for private industry to adopt a pro-recovered materials policy."



Thus, the "Federal Procurement" sections of RCRA require:<sup>3/</sup>

- (1) By October 21, 1978, all federal procurement agencies shall procure items composed of the highest percentage of recovered materials;
- (2) By October 21, 1978, all contracting officers shall require vendors to certify the percentage of recycled materials utilized in products supplied to the Government;
- (3) By October 21, 1978, all federal procurement specifications will be revised to require that all procured products contain reclaimed materials to the maximum extent possible.
- (4) The Administrator of EPA shall provide "guidelines" to all federal agencies for use in complying with these RCRA requirements, together with information regarding the availability, sources of supply, and potential uses of materials and items containing recyclables to the maximum degree.

In fact, RCRA went on to direct the Office of Procurement Policy in the White House to cooperate with EPA to --

"implement the policy expressed in this section." <sup>4/</sup>

But, October 21, 1978 came and went more than five (5) months ago -- and none of these salutary, simple statutory mandates, since extended by Congress at EPA's request, have been fulfilled.

Why? ? ?

Again, NARI does not wish unfairly to criticize EPA or its Administrator, but its observations are as follows:

1. Instead of simply complying with the law, as passed by Congress, EPA and other agencies of the Executive Branch have lethargically "studied" and "re-studied" the legislative

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<sup>3/</sup> See 42 U.S.C. 6962.

<sup>4/</sup> See 42 U.S.C. 6962(g).

directives over and over, and in some instances, they have gone so far as to question whether the Congressional directives are actually sound and salutary;

2. They have allowed representatives of "virgin resource material-oriented companies and trade associations" to blur their vision and continually delay and frustrate the statutory procedures;
3. They have failed to act with a sense of urgency; indeed, they have proceeded so leisurely that today, long after the original statutory deadline, none of the new statutory procurement directives are in force;
4. Even now, almost three (3) years after RCRA was enacted in 1976, they have restricted their "threshold guideline studies" to paper and construction materials alone -- so, at the present pace, it will be years, perhaps decades, before all materials and items purchased by the federal government meet the RCRA procurement requirements; and
5. Finally, as of now, Congress itself which enacted RCRA, considers itself exempt from that statute -- and thus, irrespective of EPA's ultimate actions, it intends to continue to purchase all of its own paper supplies -- and those of the Government Printing Office -- without compliance with RCRA.

This, NARI submits, is a dismal picture considering the high hopes the federal procurement section of RCRA promised in 1976. It is even more discouraging when one recalls that, since about 1970, GSA has been operating a very successful paper procurement program -- a program which served as a model for RCRA's federal procurement section and which was put into effect with only a minimum of procedural delays. It is absolutely depressing when it is realized, however, that GSA has construed the broad definitions of recyclable solid waste materials in RCRA to include certain virgin paper-making materials -- and that EPA has failed

effectively to negotiate a cancelation of that GSA administrative interpretation albeit the Administrator of GSA offered to negotiate a year ago.

In sum and substance, therefore, EPA has allowed the "federal procurement" sections of RCRA to stagnate and remain impotent -- in fact, it has even allowed RCRA to be construed by another federal agency in such manner as to dilute the only successful federal procurement program in force when RCRA was enacted in 1976.

In addition, well into 1979, the Resource Conservation Committee, which is chaired by the Administrator of EPA, has still failed to release the results of its investigation under RCRA with reference to (1) "the appropriateness of recommended incentives and disincentives to foster resource conservation," and (2) the effect of existing public policies on resource conservation and how those policies might best be changed, etc., etc. <sup>5/</sup>

#### CONCLUSIONS

Thus administered, RCRA has been a "toothless tiger" -- "a dead letter" -- for almost three (3) years.

In the meantime, Congress has passed another statute -- Section 461 of the Energy Conservation Policy Act of 1978 -- which directs the Secretary of Energy to --

"set targets for increased utilization of energy-saving recovered materials . . . at levels which represent the maximum feasible increase in utilization of energy-saving recovered materials each industry can achieve progressively by January 1, 1987."

How much easier the Secretary of Energy's job under that

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<sup>5/</sup> See 42 U.S.C. 6982(j)

statute would be -- and how much higher the initial annual "targets" could be set -- if only the Department of Commerce and EPA had already performed their statutory duties as and when required by RCRA.

This Committee, however, must foreclose all future delays, and all agencies involved in resource conservation and recovery must be directed in unmistakable terms to perform their statutory duties under RCRA without further debilitating delays and inaction.

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Mr. FLORIO. Thank you very much, Mr. Merrigan.

Mr. MERRIGAN. Thank you, Mr. Chairman. I am sorry I went on so long, but it is a serious problem, from our standpoint.

Mr. FLORIO. Mr. Santini.

Mr. SANTINI. Mr. Merrigan, do I gather then that as the counsel for the National Association for Recycling Industries, your position is essentially that the existing law as it is written is satisfactory to the industry you represent? The basic delinquency that you address much of your noncritical comment to is with respect to the implementation by the two agencies concerned, Commerce and EPA.

Mr. MERRIGAN. I think the two agencies have simply not given it the same sense of urgency they have given air pollution, water pollution, OSHA and those sort of standards which require emergency urgent treatment.

Mr. SANTINI. I think your industry and the industries the other gentlemen represent are also caught up in this confused, overlapping mission problem of three agencies of Government. All have some important role in the implementation of this overall 1976 program. I can offer you little solace in telling you that we are going to reconcile that dilemma tomorrow in terms of either the conflicts or inactions which are existent in those Government agencies.

But there is ongoing now, as the result of an effort I pursued in June 1977, the first domestic interagency study. The Carter administration addressed itself to a mineral policy study review. As chairman of Mines and Mining, I am going to be devoting a considerable amount of time this year and perhaps next year to riding herd on that study.

You have at least introduced to me another aspect of a problem of national magnitude. I have reference to mineral industries. I am going to try to insure that representatives of the industry you represent are involved and have an opportunity to come in and present the recycling component of the overall foreign import reliance problem on minerals. I think that is a dimension of the problem which never gets coordinated with the overall considerations that go on with respect to decisionmaking in minerals.

Perhaps we can try and shift the emphasis a bit to get some recognition of what contribution recycling makes. There are cer-

tain minerals recycling cannot address, but there are other minerals you have identified that it can certainly address. I will try to assure that aspect of your contribution to the solution is included in our efforts.

Mr. MERRIGAN. Mr. Santini, we would appreciate that. Many of our companies—for example, in aluminum, Reynolds and Alcoa—are members of this trade association because they all have secondary sources of their own. I mean they all have secondary provisions, secondary means of recycling. But all of them will tell you quite candidly that until you eliminate the biases against the recyclables, they can never maximize their use of the materials. Recycling can never replace the virgin side. You understand that. We must always have new materials. But we certainly have a place where we have a common interest.

I am so pleased to hear you say that when you study the overall mineral problem, you will look at both sides. I think that is the most we could ask at this point.

Mr. SANTINI. Thank you, Mr. Chairman.

Mr. FLORIO. I just have one question with regard to the site selection question which was raised. Are any of the companies that are a part of your association giving any consideration to incineration on the high seas?

Mr. JOHNSON. We have as a member the one company which would offer this service in this hemisphere.

Mr. FLORIO. What is that company?

Mr. JOHNSON. Their local representative is Ocean Combustion Systems in Washington. The ship they represent is the M.S. *Volcanus*. You may not recall, but it was that ship which solved the military's problem of disposal of the notorious material Agent Orange by burning it on the high seas.

Mr. FLORIO. I would be pleased to receive any information you have about that. I am also of the opinion—and I have neglected to ask EPA—that they are giving some thought to acquiring some sort of derrick or something from one of the oil companies, or some sort of ship to try out as a demonstration project incineration at sea. I would be interested in any information you might be able to provide.

Mr. JOHNSON. I would be happy to forward you information on that ship. It has only made one trip to this hemisphere. As you can imagine, it is a fairly costly venture to bring it across. It is not a very swift ship, as ships go. They also burn at a very high rate, so they have to accumulate shoreside a very large volume of material to be destroyed in order to justify a trip to this hemisphere. They are exploring the possibilities of building a second ship which would be based in the Western Hemisphere.

Mr. FLORIO. This is for hazardous material?

Mr. JOHNSON. It is strictly for combustible hazardous materials.

Mr. FLORIO. Gentlemen, we thank you very much for your help. [The following letters and statements were received for the record:]

Room 2108, Rayburn Building  
Washington, D.C. 20515  
(202) 225-5271

PAUL FINDLEY  
30TH DISTRICT, ILLINOIS

COMMITTEE  
INTERNATIONAL RELATIONS  
AGRICULTURE

**Congress of the United States**  
**House of Representatives**

**Washington, D. C.**

March 29, 1979

APR 02 1979

The Honorable James J. Florio, Chairman  
Subcommittee on Transportation and Commerce  
3150 House Office Building Annex 2  
Washington, D.C. 20515

Dear Jim:

I want to indicate in the strongest possible way my unhappiness at the lack of responsiveness on the part of the Environmental Protection Agency in implementing the Resource Conservation and Recovery Act.

My unhappiness results from the cavalier attitude EPA has shown towards the suffering and public outcry of the residents of Wilsonville, Illinois, where a hazardous waste facility has been located. EPA's actions in the case of Wilsonville have been entirely inconsistent with its obligations under RCRA.

Located within the city limits of Wilsonville, a hazardous waste dump with the euphemistic name of Earthline has created an extraordinary controversy. In a suit against the company, the citizens of Wilsonville, joined by the Illinois Attorney General, sought injunctive relief against further dumping and operation of the Earthline site. Ironically, EPA took the side of Wilsonville. Squaring off against each other, the residents won a victory in August of 1978 when Judge John Russell ordered the site closed and dismantled because of the danger it posed to the town. Yet Judge Russell's order may never be implemented if his decision is overturned on appeal, an appeal supported by EPA.

Despite the requirements of RCRA and what I believe to be clear Congressional intent--not to mention common sense--EPA's approach has been to ignore the most basic and perhaps the single most important problem in the regulation of hazardous waste: site selection. In rules recently proposed by the agency for sections 3001, 3002 and 3004 of RCRA, there is little evidence that EPA even considered this important question.

In fact, it is the very absence of tough regulations on site selection that caused the problem of Wilsonville. Back in 1976, when construction permits were granted to Earthline, no mention was

made as to what the company planned to treat and bury there. It was only after the dump began filling up that residents learned of the dangerous chemicals being buried within their community. Immediately, the residents commenced legal action against Earthline in what was to be the beginning of a long and protracted battle against Earthline and EPA.

EPA's involvement in the Wilsonville case, from the very beginning, has lacked a logical focus. Because of internal dissension within the agency, there has never been a determination by EPA of the safety of the Wilsonville facility. In a letter I received this past week from Mr. Thomas Jorling, Assistant Administrator for Water and Waste Management for EPA, I was told that there has never been a determination by EPA as to whether Wilsonville is a "situation that pose[s] an existing or potential imminent hazard to public health through groundwater contamination, surface water discharges including potential spills, air emission and/or radiation emissions." Citing its obligation under the Clean Water Act and the Toxic Substances Control Act (TSCA), EPA claims to have conducted a very limited technical review only of the adequacy of the site for PCB storage and disposal. According to Mr. Jorling's letter, the technical evaluation of the facility for handling PCB's "could be (and was) measured against (at that time) proposed EPA regulations concerning the handling of PCB's under TSCA." Yet far more dangerous chemical wastes than PCB's are being stored at the Earthline site in Wilsonville. Cyanide and dioxin, the latter of which is so deadly that as little as three ounces of dioxin is enough to kill more than three million people, are being trucked to Wilsonville and buried in that tiny community.

If EPA could determine that Wilsonville was safe for handling PCB's using proposed regulations, why did not the agency, using the proposed rules for sections 3001, 3002 and 3004 issued December 18, 1978, make a determination as to the safety of Wilsonville as a place to bury dioxin and cyanide before filing its amicus curiae brief February 5, 1979, in the appeal of Village of Wilsonville et al. v. Earthline Corporation? EPA's reluctance to conduct a technical evaluation between the middle of December and the first of February is inconsistent with its actions in reviewing Earthline's capacity for handling PCB's. Never having determined the safety of the Wilsonville site, how can EPA justify submitting an amicus brief supporting the company and the facility and placing the enormous prestige (not to mention limitless economic and legal resources) on the side of the company and against the people of Wilsonville? EPA has gone off half-cocked and done a half-baked job in evaluating the safety of the Earthline dump at Wilsonville.

The agency's support of Earthline compromises the image and effectiveness of EPA and the entire federal government in the eyes of the residents of central Illinois.

EPA's inconsistent and muddled approach becomes more obvious when Mr. Jorling adds the caveat that when EPA personnel testified in the case it was "their individual opinions--based on information about the facility and their knowledge of the then-developing EPA hazardous waste regulations--[that] the Wilsonville facility could be considered 'acceptable' as a hazardous waste management facility." Since a technical evaluation for the entire facility has never been made, how could EPA personnel proclaim the site "acceptable" as a hazardous waste facility?

Much of the controversy and argument surrounding the Wilsonville case would have been avoided had three of my long standing suggestions been implemented. It is my belief that no hazardous waste facility should never be located near populated areas. Once such waste facilities have been established in a populated area, even the strictest regulations governing their operation are likely to prove inadequate. In the last session of Congress I introduced a bill that would have solved this problem. I hope your subcommittee will urge EPA, in implementing section 3005 of RCRA, to develop rules which make it impossible to locate a hazardous waste dump in a populated area.

Secondly, I would hope you will urge EPA to construct a waste classification system such as those in effect in Illinois, California and Texas which recognize the degree of hazard. Utilizing this kind of system will enable more reasonable, defensible and less inflationary regulations to be devised. And most importantly, classification will also, I believe, make public acceptance of certain hazardous waste sites more likely if people know what kinds of wastes are to be handled at a facility. For example, fly ash is considered hazardous but has a low level of toxicity. Given a low toxic rating, people should be more willing to have fly ash stored near them than a waste such as cyanide which has a much higher toxic rating.

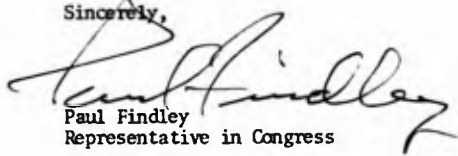
Finally, I feel it is imperative to have the public participate in all phases of determining where hazardous waste sites should be located. In section 3005, EPA is considering writing regulations that would make it an option of the regional administrator to hold public hearings to consider where to locate a hazardous waste site. The experience of Wilsonville should not be repeated again. Hearings must be held and full disclosure of information should be minimum requirements before construction permits are granted for the building of a facility. I would urge you to ask EPA to require hearings to be



held and to accept this as a minimum standard for the public participation rules under section 3005 of RCRA.

The tragic experiences of Love Canal, the Valley of the Drums and Wilsonville should never be allowed to happen ever again. Oversight by your subcommittee of EPA's implementation of RCRA is vital. I commend you for this and offer my assistance.

Sincerely,

A handwritten signature in cursive script, appearing to read "Paul Findley".

Paul Findley  
Representative in Congress

P.S. I will be grateful if you will print the text of this letter in your hearing record.

ADVANCING VOLUNTARY LEADERSHIP IN A CHANGING WORLD



## Chamber of Commerce of the United States

HILTON DAVIS, VICE PRESIDENT  
LEGISLATIVE AND POLITICAL AFFAIRS

202-659-6140

1615 H STREET, N.W.  
WASHINGTON, D.C. 20002

March 30, 1979

The Honorable James J. Florio, Chairman  
Subcommittee on Transportation and  
Commerce  
Committee on Interstate and Foreign  
Commerce  
House of Representatives  
Washington, D.C. 20515

Dear Mr. Chairman:

The purpose of this letter is to convey the comments of the Chamber of Commerce of the United States regarding oversight of the Resource Conservation and Recovery Act of 1976 (RCRA). The Chamber is the world's largest business federation with over 80,000 members, 85% of which are small businesses. Because of the size and diversity of the Chamber's membership, we probably represent the broadest spectrum of people affected by the Act's various requirements.

As you know, Mr. Chairman, the Chamber was extremely active in the work that resulted in RCRA, and we were one of the strongest proponents of both a strong federal role in the furtherance of resource recovery and in the creation of a uniform program to control hazardous wastes.

We will discuss below our recommendations for amending Subtitle C of the Act to improve the hazardous waste program. We will then suggest other amendments to the statute that are necessary to achieve RCRA's goals.

Comments on Subtitle C

It is indeed unfortunate that recent events, which have received so much attention by the media, have diverted attention from the question of which technical adjustments might be made to RCRA to achieve, in a reasonable manner, the environmental protection goals we all support. We intend to work with you at a subsequent date in the formulation of a response to the public concern over the aforementioned incidents. But we feel that attention must first be given to the Act itself, to ensure that it is being implemented in as fair and efficient a manner as possible to meet the Act's goals. We commend you for arranging the hearings schedule so that those issues might be given proper attention.

Attached is a copy of our comments to the Environmental Protection Agency (EPA) on the December 18, 1978 proposed regulations pursuant to Sections 3001, 3002 and 3004. They express the views of a cross-section of industry on provisions of most concern.

Pursuant to that statement, which we request you to include, in its entirety, in the hearing record, we propose the following amendments to RCRA to help facilitate the implementation of a truly effective, yet reasonable, hazardous waste control program.

1. RCRA should be amended to make it clear that hazardous waste disposal facilities begun subsequent to the passage of the Act, are "grandfathered." Owners of such sites are in a quandry since the regulations have been delayed. They are confused as to what is expected of them. Although most, if not all, have followed closely the various preliminary drafts of the Section 3004 regulations, the continual changes in the drafts have compounded the situation. Furthermore, although the regulations have finally been issued in a proposed form, there is no assurance that a facility built to the proposed specifications will meet the final requirements.

2. RCRA should be amended to clarify and reiterate Sections 1004(27) and 6005(a) that NPDES water storage lagoons constructed to meet requirements of the Clean Water Act are not subject to the requirements of Subtitle C. This rising issue, should it not be resolved in a manner which agrees with our reading of the statute, will cost industry (and ultimately the consumer) more than all other provisions of the Act combined. And more to the point, the environment will not be any better protected as a result.

3. RCRA should be amended to parallel the Clean Air and Clean Water Acts. This would ensure that EPA recognizes the wisdom behind the concept that there should be a different set of standards for existing, as compared to new, hazardous waste disposal sites. Retrofitting existing facilities to put in, for example, monitoring devices beneath landfill liners will require owners to incur a tremendous expense and will penalize those who built their facilities using the best technology available. Since they spent more trying to build first-class facilities, they will now be faced with an even greater expense to retrofit such facilities to install monitors beneath them. However, someone who put in an inadequate facility will not have as great a burden in accomplishing such a retrofit.

4. Section 3001 of the Act should be amended to require EPA to initiate a classification program based on the "degree of hazard" of each waste. Although EPA has wisely recognized the need for a "special waste" category encompassing wastes that are produced in tremendous volumes, a further classification is needed. To exempt a highly toxic waste if it is

produced in less than 100 kg per month quantities while requiring total control of marginally hazardous wastes because they are produced in larger quantities, does not make much sense.

5. RCRA should be amended to include a confidentiality provision similar to that included in the Toxic Substances Control Act to ensure the proper protection of sensitive industry data that is required to be reported under Subtitle C. There is great concern among industrial experts that without such specific protection, sensitive data on the specific hazardous wastes disposed in a particular landfill might enter the public domain, allowing a competitor, through sophisticated analysis, to determine what products (and what quantities of such products) are produced at a particular plant.

6. RCRA should be amended to require the EPA to include a risk assessment test in the promulgation of various criteria and tests pursuant to Subtitle C. A great many commentators to EPA on the proposed regulations have mentioned the need for a cost-benefit analysis for various segments of these regulations. Such an analysis should be required by RCRA, as it is in the Clean Air Act. However, of even greater importance is the need for a risk assessment analysis to determine if the degree of control required is commensurate with the risk involved with the disposal of each substance. While this is a comparatively new approach, we think that it holds a great deal of merit in that it begins to focus attention more properly on the question of how much control is needed for different substances based on their degree of toxicity and persistence.

7. RCRA should be amended to parallel the Clean Water Act to exempt a Subtitle C permit applicant, in a state having authority to issue a hazardous waste permit, from the need to prepare an Environmental Impact Statement as required by the National Environmental Policy Act (NEPA). Such an assessment might very well be required in states where EPA issues the permit, but the fact that an applicant has successfully met all the stringent requirements necessary to receive a Subtitle C hazardous waste permit should obviate him or her from having to undergo this superfluous requirement.

#### Comments on Other Sections

The following suggestions relate to amendments to ensure that RCRA is efficiently implemented by EPA in areas other than those relating to the control of hazardous wastes:

1. The Act should specify national resource recovery goals to be met by EPA (i.e., a certain number of cities with ongoing construction of resource recovery facilities and/or a certain level of tons per day of trash being converted by energy recovery systems).

2. The definition of "solid waste" should be narrowed. At present, it is so broad that confusion and inaction have led to little or no environmental clean up.

3. Section 2006(b), requiring that no less than 20% of the funds appropriated under this Act be spent for the purposes of the resource recovery panels, should be strengthened. EPA has failed miserably to meet this requirement of the Act, causing a failure of the goals of the Act with respect to the education of municipal officials as to how they might utilize resource recovery systems to meet their particular needs.

4. Section 8003 of the Act has been given very low priority by EPA. Section 8003(a) requires the Administrator to collect, evaluate, coordinate and disseminate information on various aspects of the solid waste problem. Failure to do so has left a void in the information flow necessary to educate the public as to what can and cannot be done to properly dispose of hazardous wastes and in the siting of hazardous and non-hazardous waste landfills. By failing to utilize fully Section 8003(a), the Agency has missed an excellent opportunity to take the lead in a public education effort to stimulate resource recovery activities which would provide more jobs, clean up the environment, better utilize urban land areas and save valuable fossil fuels.

Section 8003(b) requires EPA to establish a technical information library. This requirement has been given a very low priority and is another missed opportunity to provide a mechanism for informing city officials of the realities of resource recovery technology and the experience other communities have had in investing in such systems.

Section 8003(c) requires EPA to set up model codes and ordinances providing for sound solid waste management. A recent meeting of industry experts on this subject cited the need for such ordinances in assisting municipalities to become involved in resource recovery facilities by having available such model codes in the areas of procurement, contracts, alternative energy source incentives, and taxes. There was a general indictment of the Agency for failing to provide this much-needed expertise in this fashion.

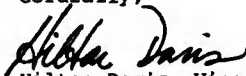
5. Subtitle E should be strengthened. The Bureau of Standards has performed admirably in implementing its mandate of Section 5002 to develop specifications for recycled materials. But, the entire Department of Commerce program has been severely hampered because it was not granted a direct authorization in the Act. Rather, the Department has had to fight drawn out bureaucratic battles with EPA and the Office of Management and Budget to get sufficient funds to carry out its mandate. RCRA should be amended to give the Department of Commerce a direct authorization to ensure that Subtitle E is more effectively

implemented. With this assurance, Commerce could move ahead expeditiously to identify markets for recycled materials which will encourage more cities to engage in resource recovery. Simultaneously, the closing of open dumps will make resource recovery plants even more economically attractive, and we will be well on our way to seeing the loop closed in controlling the pollution of our urban land environment.

We offer these recommendations in the hope that the Act will indeed meet the goals envisioned by its supporters when it was enacted. We stand ready to work with you and the subcommittee staff to ensure that the Act is adjusted in a manner to ensure its success. Please feel free to contact our staff specialist, Gary Knight (659-6173) should you wish to discuss these points in detail.

~~We request that this statement, together with its attachment,~~ be made part of the hearing record.

Cordially,



Hilton Davis, Vice President  
Legislative and Political Affairs

~~attachment~~

cc: Subcommittee members  
Ms. Georgette Walsh  
Mr. Paul Malloy



## Governmental Refuse Collection and Disposal Association, Inc.

March 28, 1979

Honorable James J. Florio  
Chairman, Subcommittee on  
Transportation and Commerce  
Committee on Interstate and  
Foreign Commerce  
House of Representatives  
Washington, D.C. 20515

Dear Mr. Florio:

The Governmental Refuse Collection and Disposal Association (GRCDA) is unable to be present to testify at the hearings scheduled for March 27 and 28, 1979, on the reauthorization of the Resource Conservation and Recovery Act of 1976. However, we feel that the considerations and deliberations of the Subcommittee regarding RCRA are far too important for our Association not to present a general statement in support of the Subcommittee's effort and the continuation of the authorities of RCRA.

The Governmental Refuse Collection and Disposal Association was organized for people working in solid waste management. The program and activities of GRCDA provide information and services through training, research, direct assistance efforts and technical seminars and programs to those people to improve their ability to do their job.

GRCDA was organized in 1961 in California by solid waste management professionals. GRCDA has now expanded into an international organization throughout the United States and Canada. Approximately 60% of GRCDA's membership is employed by public agencies and organizations and 40% of GRCDA's membership is employed by private companies, firms and organizations. Approximately 25% of GRCDA's membership is Canadian.

GRCDA offers a variety of programs to its members. GRCDA's objectives are to provide education and training for its members. Therefore, a major part of the international organization and chapters' efforts are invested in the conduct of technical meetings, training programs and seminars to expand the knowledge and skills of our membership. Through GRCDA's International Headquarters office, GRCDA's membership interests are represented at the federal level in both the U.S. and Canada. GRCDA also participates in efforts with other organizations to influence actions at the federal, state and local level which have the potential of impacting significantly on the membership.

From this brief review of GRCDA and its programs and activities, I am sure that you can understand our interest and support in the continuation of the authorities of RCRA. GRCDA supports fully the re-authorization of RCRA and urges that

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WASHINGTON, D.C. 20006  
(202) 223 - 6627/6628

the Subcommittee assure that the efforts begun in both Subtitle C and Subtitle O of RCRA are continued and funded fully. These efforts must be implemented by state and local government and their industry partners. Financial and technical assistance must continue if we are to see the realization of the elimination of open dumps, intelligent control of hazardous wastes, and the acceleration of the utilization of resource recovery as an option in solid waste management.

There are some profound changes that should be considered in the authorities of RCRA. However, we would recommend that the Subcommittee reauthorize RCRA in its present form and then focus on those areas that need changing in a more systematic process during the remainder of this year. There are many issues to consider and many opinions to consider which can only be done through a much longer and systematic process. Some of the issues which we think will need careful study and consideration before RCRA is amended include:

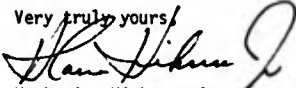
1. Long-term financial responsibility for disposal sites licensed and permitted consistent with the regulations and criteria of both Subtitle D and Subtitle C. While we have heard considerable discussion about a national fund for long-term financial liability for closed hazardous waste sites we have not seen the same concern about municipally owned sites that may have received a mixture of solid wastes not considered hazardous. We believe that the financial capability of local government to pay for the impact of non-sudden occurrences resulting from these disposal sites is no greater than it is for industry. In these days of inflation, tightening local government budgets, and the spirit of Proposition 13, we feel that long-term liability funds should include all types of disposal facilities.
2. The inventory required by Section 4005 of RCRA will no doubt result in the demand for local government to expend funds just to determine if their sites are in compliance. At the present time there is no indication that financial support will be made available to owners and operators of disposal facilities to determine their status. We suggest that it is only appropriate that RCRA funds be provided to owners and operators (public and private) of sites for the costs of investigations required by the Section 4005 inventory.
3. Site acquisition is a significant and frequently impossible task. Far too often local government is unable to overcome citizen resistance and political pressure to make the decisions necessary. We suggest that RCRA should be amended to provide a means by which state government is provided guidance, assistance, and incentives to exercise their imminent domain authorities to acquire sites when all reasonable methods have been expended by local government and industry.
4. We continue to support the provisions of Section 2006 regarding the requirement that 20% of the RCRA budget be devoted to the support of the Technical Assistance Panels. However, we suggest that the language needs to be strengthened in order to assure that there is 20% actually spent on the direct delivery of technical assistance through the panels program, and that a separate additional amount be provided to the EPA to manage this program.
5. The "Love Canal" incidences are merely the beginning of an awakening that we must pay our dues for past disposal practices. We support separate legislation which would provide for a nationally established fund for such incidences outside of the



long-term financial responsibility requirements of sites meeting the regulations and criteria of RCRA. While there is a need for a fund for the closure, longterm care and financial responsibility of RCRA sites, as we discussed in item one of this letter, we feel that in many instances responsibility cannot be placed for the long ago practices. Therefore, there must be an overall assessment against the nation to take care of these occurrences. As such, such a fund should be raised and managed outside of the authorities of RCRA or any amendments that might occur with RCRA.

We realize that the above comments are brief. However, GRCDA is of the opinion that we should provide this brief statement during your current hearings and request that when the Subcommittee holds hearings on amendments that we be given a chance to provide detailed comments on some of the ideas that we have about amending RCRA. Please call on us whenever we can be of assistance to the Subcommittee.

Very truly yours,

A handwritten signature in dark ink, appearing to read "H. Lanier Hickman, Jr.", with a large, stylized flourish extending to the right.

H. Lanier Hickman, Jr.  
Executive Director

10 East Lakeshore Drive, #5  
Cincinnati, Ohio 45237  
April 2, 1979

Hon. James J. Florio  
House of Representatives  
Subcommittee on Transportation  
and Commerce of the  
Committee on Interstate and  
Foreign Commerce  
Washington, D.C. 20515

Re: Testimony and Proposed Amendment  
to the Resource Conservation  
and Recovery Act of 1976

Dear Mr. Florio:

My name is Jeffrey R. Melnikoff and I am by profession an attorney and engineer currently working in Ohio. I have drafted the attached proposed amendment to the Resource Conservation and Recovery Act of 1976 which proposes establishing a federal loan guarantee program to build solid waste recycling facilities. I have, with my own time and money, promoted this proposal throughout the country over the last two years. Through my promotional efforts this proposal has received very favorable comments from the Sierra Club, the California Pollution Control Financing Authority, the Connecticut Resources Recovery Authority, and the State of Florida Solid Waste Control Agency. I hereby submit this statement and the proposal for consideration by the Subcommittee.

I. The Solid Waste Recycling Industry

I firmly believe that the expeditious development of a solid waste recycling industry in the United States will solve many problems plaguing America. The development of this industry will eliminate unsightly and environmentally undesirable garbage dumps from the face of America. An active recycling industry will provide a new source of vital raw materials, such as aluminum, steel, tin, etc. that will be freely available and substantially immune from the influence of foreign governments. Because recycling facilities will inevitably be built close to the waste sources, i.e., municipalities, such facilities will provide an urgently needed new source of employment for urban areas. Perhaps the most important benefit to be derived from an active recycling industry is that it will provide a new low sulphur energy source. The Environmental Protection Agency estimates that one ton of municipal waste will generate the energy equivalent of 1.5 barrels of oil.

## II. The Financial Problem

The development of a viable solid waste recycling industry offers the solution to many pressing problems in America. However, the development of the industry has been substantially hindered by the high cost necessary to develop the technology and to build the facilities required in a realistic solid waste recycling operation. Some claim the technology currently available for solid waste recycling is in need of further development before it warrants heavy investment. The rate of development could, however, be accelerated by making funds available to develop operational scale equipment. Such development cannot be forthcoming until there is enough available money to staff and fund the job. Once satisfactory technology becomes available, substantial financing will be necessary to build solid waste recycling facilities because they are expected to be capital intensive.

To remedy some of the financial problems of this fledgling industry, I propose to amend the Resource Conservation and Recovery Act of 1976 to establish a federal loan guarantee program to guarantee loans taken to build and develop recycling facilities. Such a guarantee program would make money more available from private sources to build and develop the necessary facilities.

## III. Methods of Funding Facilities

The current method of financing solid waste recycling facilities has been through private placement of loans through investment banking facilities or through the sale of municipal bonds. Private placement of loans is particularly well suited for privately developed, built and operated facilities. When working through private organizations, loans can be negotiated without consideration for the legislative authorities that would bind municipalities. Those knowledgeable in the banking world claim there is capital available for investment in proven facilities on the current market. This may be true, but I note that curiously there has been no apparent substantial progress in the building of plants on a scale that would mark the significant development of the industry. There are currently systems under development which have been privately funded and are believed economically feasible. However, it is a very rare instance when one system can service all needs and I believe that money is still needed to stimulate the development of other systems which may work where those currently planned and financed are not economically feasible. Thus, a program to guarantee loans taken by private industry would stimulate the role of the private sector in the recycling industry.

Municipalities are the entities most likely to build solid waste recycling facilities because they deal directly with the problem of municipal waste disposal. Municipalities are most

likely to use municipal bonds as a financing instrument because municipal bonds are tax exempt to the bondholder if they are general revenue bonds or industrial bonds under IRC §103, Regulations §17.1. However, availability of these municipal bonds has not proven to be a cure-all in municipal financing for solid waste recycling facilities. Despite any available tax advantages under the current laws, some cities could not market any municipal bonds at all or could only market them at high interest rates because of recent defaults or bad credit ratings. Thus, some mechanism must be found to ease the credit problems of municipalities.

The loan guarantee program I have proposed is applicable to both private organizations and municipalities. My proposal would put the financial strength of the United States Government, as a guarantee, behind the loans placed by municipalities or private organizations for the purpose of developing and building solid waste recycling facilities complying with the specific provisions provided in the proposal. The provision of loan guarantees would lower the interest cost on any loans taken or bonds sold for the purpose of building such facilities by eliminating the risk of default of the borrowing municipality or private organization. The note holder would ultimately have recourse against the United States Government on the guaranteed note. By lowering the interest cost on the financing instruments used, debt service payments would be lower and overall capitalization costs would be decreased in building a solid waste recycling facility. The lower the capitalization cost, the lower the cost of long term amortization of the debt. This decreased cost would ultimately lower the cost of operation and the throughput cost per ton would be reduced to yield more profitable facilities.

The lower cost of raising money for building solid waste recycling facilities would encourage investment in the development of technology needed for the industry.

#### IV. Precedent for Federal Loan Guarantee Program

Federal loan guarantee programs have often been used in the past for the purpose of stimulating desirable industries and protecting the financial integrity of municipalities. Listed below are some examples of federal loan guarantee programs.

##### A. Federal Loan Guarantees To Stimulate Commercial Energy Production

1. Federal loan guarantees for the development of geothermal energy facilities, 30 U.S.C. §1141.
2. Federal loan guarantees for energy conservation and resource renewal facilities, 42 U.S.C. §6881.

B. The federal government has also provided loan guarantees for general purposes.

1. Loan guarantees for the city of New York, Seasonal Financing for New York City, 31 U.S.C. §1501-1510.
2. Ship mortgage insurance, 46 U.S.C. §1273.

Thus, the establishment of a federal loan guarantee program is not a particularly new concept and has been applied to stimulate desirable industries. It is my opinion that the solid waste recycling industry is an appropriate industry for such a program.

V. Proposed Amendment to Establish a Federal Loan Guarantee Program

Enclosed is a proposed federal loan guarantee program for solid waste recycling facilities to be added as an amendment to the Resource Conservation and Recovery Act of 1976.

The proposal, as currently drafted, includes clauses which will effectively establish the loan guarantee program. Listed below are aspects of the proposal which are particularly applicable to a loan guarantee program for the solid waste recycling industry:

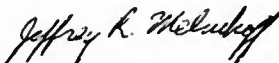
1. Loan guarantees would be extended to both private organizations and municipalities; see §(A)(1).
2. The program is limited in the maximum amount of loans to be guaranteed to \$10,000,000,000 to provide a budgetary guide for a maximum sinking fund; see §(A)(1).
3. The proposal limits the maximum amount of loans to be guaranteed for each facility to \$60,000,000,000; see §(B)(10).
4. The proposal provides that financial assistance in the form of a guarantee will not be extended where the Secretary, the Treasurer and the Administrator are satisfied that funds may be otherwise made available from private lenders. This provision would not hinder the efforts of those currently in the private loan placement business; see §(7)(b).
5. The proposal requires that guarantees would only be extended to facilities that have been proven in pilot plant operations. This clause is intended to limit the program applications to those facilities proven in working designs, thus insuring more secure loans and a technically sound development of the industry; see §(B)(9).

6. The program requires that loan guarantees will only be extended to those facilities that comply with water and air pollution laws, see §(B)(4), and state solid waste disposal plans, see §(B)(1).
7. The program requires that those seeking guarantees provide assurances and proof to the Administrator that there are adequate markets to sell end products of the recycling process to ensure the economic viability of the facility; see §(B)(3).
8. The program allows guarantees to cover up to 100% of the loaned amount to municipalities. This clause would extend the loan guarantee program to help cities who could not market bonds or borrow money without federal guarantees, see §(B)(6).

#### VII. Conclusion

It is to the benefit of the United States that a viable solid waste recycling industry be developed as soon as possible. The proposal would help overcome some of the difficulties encountered in financing the development of such an industry. The committee is urged to bring this proposal before the Congress of the United States as an amendment to The Resource Conservation and Recovery Act of 1976 to establish a federal loan guarantee program for solid waste recycling. I will be available for any consultation or assistance you need. Thank you for your consideration.

Very truly yours,



Jeffrey R. Melnikoff

JRM:d1m  
Encl.

## LOAN GUARANTEES

(a) (1) GENERAL- The Administrator of the Environmental Protection Agency is authorized, in accordance with the provisions of this section and such rules and regulations as he shall prescribe, and after consultation with the Secretary of the Treasury, to guarantee and to make commitments to guarantee the bonds, debentures, notes, and other obligations issued by or on behalf of-

A-any State, municipality, or intermunicipal agency, or

B-in the case of facilities or equipment for the processing of solid wastes and the utilization of recovered resources, any other person, institution, organization, corporation, or partnership, for the purpose of financing the construction and startup and related development costs of commercial facilities necessary to the creation of resource conversion or resource recovery systems for municipal solid wastes, including the construction or modification of commercial facilities or acquisition or equipment necessary for the utilization of recovered resources, including fuel produced by such system: PROVIDED, That the outstanding indebtedness guaranteed under this Act at no time exceeds \$10,000,000,000: PROVIDED FURTHER, That no guarantee or commitment to guarantee shall be undertaken under this Act after September 30, 1985

(2) An applicant for a loan guarantee under this section shall provide evidence in writing to the Administrator in such form and with such content and other submissions as the Administrator deems necessary to protect the interest of the United States. Each guarantee and commitment to guarantee shall be extended in such form, under such terms and conditions, and pursuant to such regulations as the Administrator, with the concurrence of the Secretary of the Treasury, deems appropriate.

(b) CONDITIONS- The Administrator shall guarantee or make a commitment to guarantee under subsection(a) of this section, with respect to a facility of a resource conservation or resource recovery system, or component thereof, only if-

1. such system is certified by the State to be consistent with any applicable State or areawide plans or programs;

2. the applicant agrees that such system will be consistent with any applicable guidelines published under section 4002(a) of this Act and will meet the requirements of sections 4003-4005 and 3001-3011 of this Act;

3. the Administrator is satisfied that the resource conservation or resource recovery system is appropriate for the area to be served, that the proposed system does not duplicate or displace existing resource conservation or resource recovery services in the area, and that a realistic plan for achieving operational and financial self-sufficiency within a reasonable time exists for the proposed system, including adequate new and stable markets, such as a long-term contractual commitment for a significant proportion of the recovered resources;

4. such system will comply with effluent limitations under the Federal Water Pollution Control Act and with new source emission limitations or requirements of air quality implementation plans under the Clear Air Act;

5. the Administrator is satisfied that competition among private entities for the construction or operation of the system or facility to be assisted under this section will be in no way limited or precluded;

6. the amount guaranteed does not exceed 75 per centum of the total project cost of the facility assisted for a project owned and operated by parties defined in Part (a)(1)(B) of this section and the amount guaranteed may include up to 100 per centum of the total project cost of the facility where obligations are issued by or on behalf of parties defined in Part (a)(1)(A) of this section:

a. in the case of governmental applicants, from general tax revenues or assessments or the proceeds of bond sales; and

b. in the case of private applicants, from invested or borrowed capital not subject to any public loan, guarantee, or grant program;

7. the Secretary of the Treasury and the Administrator are satisfied that the financial assistance applied for is not otherwise available from private lenders or from other Federal agencies on terms which in the opinion of the Secretary and the Administrator will permit the creation of the resource conservation or resource recovery system, and such assistance is necessary to encourage financial participation in such facility by private lenders or investors;

8. the Administrator has determined that there will be a continued reasonable assurance of full repayment;

9. The facility will use technology proven to operate within the proposed specification of an operational pilot plant test facility (Pilot plant facility is defined to be an actual working plant and not a laboratory facility.);

10. The maximum amount of loans guaranteed for any individual facility under this act shall not exceed \$60,000,000.

(c). Except in accordance with reasonable terms and conditions contained in the written contract of guarantee, no guarantee issued or commitment to guarantee made under this section shall be terminated, cancelled, or otherwise revoked. Such a guarantee or commitment shall be conclusive evidence that the underlying obligation is in compliance with the provisions of this section and that such obligation has been approved and is legal as to principal, interest, and other terms. Subject to the conditions of the guarantee or commitment to guarantee, such a guarantee shall be incontestable in the hands of the holder of the guaranteed obligation, except as to fraud, or material misrepresentation on the part of the holder.

(d). (1) If there is a default by the borrower as defined in the regulations promulgated by the Administrator and in the guarantee contract, the holder of the obligation shall have the right to demand payment of the unpaid amount from the Administrator.



Within such period as may be specified in the guarantee or related agreements, the Administrator shall pay to the holder of the obligation the unpaid interest on an unpaid principal of the guaranteed obligation as to which the borrower had defaulted, unless the Administrator finds that there was no default by the borrower in the payment of interest or principal or that such default has been remedied. Nothing in this section shall be construed to preclude any forbearance by the holder of the obligation for the benefit of the borrower which may be agreed upon by the parties to the guaranteed obligation and approved by the Administrator.

(2). In the event of a default on any guarantee under the section, the Administrator shall notify the Attorney General, who shall take such action as may be appropriate to recover the amounts of any payments made under paragraph (1) (including any payment of interest under subsection (e) of this section) from such assets of the defaulting borrower as are associated with the commercial facility, or from any other security included in the terms of the guarantee.

(3). For purposes of this section, patents, and technology resulting from the commercial facility shall be treated as project assets of such facility in accordance with the terms and conditions of the guarantee agreement. Furthermore, the guarantee agreement shall contain a provision specifying that patents, technology, and other proprietary rights which are necessary for the completion or operation of the commercial facility shall be available to the Government and its designees on equitable terms, including due consideration to the amount of the Government's default payments.

(e) With respect to any obligation guaranteed under this section the Administrator is authorized to enter into a contract to pay, and to pay, the holders of the obligation for and on behalf of the borrower from the fund established by this section the principal and interests payments which become due and payable on the unpaid balance of such loan if the Administrator finds that-

(1) (A) the borrower is unable to meet such payments and is not in default; (B) it is in the public interest to permit the borrower to continue to pursue the purposes of such facility; and (C) the probable net benefit to the Federal Government in paying such principal and interest will be greater than that which would result in the event of a default;

(2) the amount of such payment which the Administrator is authorized to pay shall be no greater than the amount of principal and interest which the borrower is obligated to pay under the loan agreement; and

(3) the borrower agrees to reimburse the Administrator for such payments on terms and conditions, including interest, which are satisfactory to the Administrator.

(f). The Administrator shall charge and collect fees for guarantees of obligations authorized by this section in amounts sufficient in the judgment of the Administrator to cover the applicable administrative costs and probable losses on guaranteed obligations, but in any even not to exceed 1 per centum per annum of the outstanding indebtedness covered by the guarantee.

(g) No part of the program authorized by this section shall be transferred to any other agency or authority, except pursuant to Act of Congress hereinafter enacted.

March 12, 1979

STATEMENT OF JAMES N. BARNES  
ON BEHALF OF THE  
NATURAL RESOURCES DEFENSE COUNCIL, INC.  
SIERRA CLUB, WILDERNESS SOCIETY,  
ENVIRONMENTAL DEFENSE FUND,  
FRIENDS OF THE EARTH, NATIONAL AUDUBON SOCIETY,  
AND ENVIRONMENTAL POLICY CENTER  
BEFORE THE SUBCOMMITTEE ON COAST GUARD AND NAVIGATION  
OF THE HOUSE COMMITTEE ON MERCHANT MARINE AND FISHERIES  
ON SUPERFUND LEGISLATION

Mr. Chairman, Members of the Committee:

I am James Barnes, a lawyer with the Center for Law and Social Policy, a public-interest law firm in Washington, D.C. I appreciate the opportunity to appear before you today on behalf of seven environmental organizations -- The Natural Resources Defense Council, Sierra Club, Wilderness Society, Environmental Defense Fund, Friends of the Earth, National Audubon Society, and Environmental Policy Center (hereinafter the "environmental organizations")\* -- to present their views on legislation concerning liability and compensation to cover spills of oil and hazardous substances.\*\*

\* NRDC, whose principal office is at 122 E. 42nd Street, New York, New York 10017, and which has additional offices in Washington, D.C. and Palo Alto, California, has a membership of approximately 22,000 persons, including members residing in 8 foreign countries. The Sierra Club, whose principal place of business is at 530 Bush Street, San Francisco, California 94104, has a membership of approximately 180,000 persons, including persons residing in 87 foreign countries. Wilderness, which has its principal office at 1901 Pennsylvania Avenue, N.W., Washington, D.C. 20006 and a field office in Denver, Colorado, has a membership of approximately 65,000 persons. EDF, whose principal place of business is 475 Park Avenue, New York, New York 10016, has a membership of approximately 45,000 persons and a 700-member Scientists' Advisory Committee, including members residing in 18 foreign countries. FOE, whose principal place of business is 124 Spear Street, San Francisco, California 94105, has a membership of 20,000 persons and is affiliated with "sister organizations" in 12 foreign countries. Audubon, which has its

These national environmental organizations have long taken an active interest in protection of the marine environment. They began their involvement with the subject of oil pollution liability through their submission of comprehensive comments to, and other contacts with, the Department of State in relation to the negotiation of the 1971 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage. Since then, we have testified on numerous occasions before House and Senate committees on proposed liability legislation.

The environmental organizations believe that existing international, national and state laws on liability and compensation are inadequate, and we appreciate this committee's continuing interest in obtaining comprehensive legislation in this area. We look forward to the enactment of a liability and compensation scheme that will ensure fair and efficient compensation for all damages resulting from spills; encourage a high standard of care and prompt, thorough cleanup of spills; and that results in the risks of transporting oil and hazardous materials being internalized by industry. We believe that both H.R. 85 and H.R. 29 represent constructive approaches. We would, however, suggest certain modifications, which I will outline in my testimony.

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[footnote continued]

principal office at 950 Third Avenue, New York, New York 10022, has a membership of more than 340,000 persons, including members in more than 100 foreign countries. EPC's principal office is at 317 Pennsylvania Avenue, S.E., Washington, D.C. 20003; it has no members itself but represents coalitions of citizens around the country on energy and natural resources issues.

\*\* Peggy Brown, a law student intern in the Center's clinical program, helped prepare this testimony.

The environmental organizations are concerned that the jurisdictional disputes among various committees that prevented passage of legislation last session not be repeated this year.

1. Liability Limits

The limit of liability for ships under both H.R. 85 and H.R. 29 is \$300 per gross ton, up to a maximum of \$30 million and \$50 million respectively. We feel very strongly that liability limits should be related to the size of the vessel, regardless of how large the ship is. There does not appear to be any sound reason for choosing an arbitrary upper limit that is not linked to vessel size. For fairness and in order to reduce the probability of very large spills occurring, supertankers should not be put in a favored position.

We also suggest the addition of an automatic inflation escalation clause under which liability limits would be adjusted annually to the nearest full percentage in the consumer price index.

2. Defenses

One thing we hope to see achieved in the legislation is the internalization of spillage costs associated with the transportation of oil and hazardous substances. Consequently, one of the most important issues a spill liability bill must address is what defenses spillers will be able to assert when sued by claimants. The basic premise of the bill must be strict liability. Oil spills are an inherent risk in the extraordinarily profitable business of handling and selling oil.

The Trans-Alaskan Pipeline Act Fund, established by Congress in 1973, would terminate with the enactment of a Superfund bill. It provides defenses to liability only for acts of war and the negligence of the United States in maintaining navigation aids. We urge the Congress not to take regressive steps in passing new legislation, but to maintain the position on allowable defenses set in 1973.

H.R. 85 would allow a spiller a complete defense if it can show a discharge was caused "primarily" by an act of war, hostilities, civil war or insurrection, or by a natural phenomenon. Not only is this a significant step away from the concept of strict liability, but it is also bound to delay the settlement of claims and to create endless litigation. Therefore, we strongly prefer H.R. 29's use of the word "solely" rather than "primarily" to establish the parameters of allowable defenses.

Both bills would establish a comparative negligence scheme, with the spiller being relieved of liability to the extent that the spill was caused by either the claimant's negligence or by the act or omission of a third party. This is also an unacceptable encroachment on the principle of strict liability.

We do not support the provision of an inclusive Act of God defense. If a phenomenon is not totally unexpected, it should be considered part of the normal risk of transporting the oil. If an Act of God defense is to be included, it should be narrow and clearly written. The following language is illustrative:

"A natural phenomenon of a type totally unexpected, given the area, the season, and the past history of conditions."

Whatever the defenses to liability allowed to a spiller, the Fund itself, which will be the compensation resource of last resort, should not be able to assert any defenses. Both H.R. 85 and H.R. 29 appear to allow, if not require, the Fund to assert the same defenses against injured parties that would be available to a spiller. This obviously would defeat the major purpose of such legislation, which is to ensure that all victims of spills who suffer loss due to spills are fully compensated.

### 3. Coverage

(a) Oil: The Superfund legislation should not contain a limited definition of what constitutes "oil pollution". In this regard, the environmental organizations strongly support H.R. 29, which incorporates the definition contained in Section 311 of the FWPCA:

"oil" means oil of any kind or in any form, including but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil.

Use of a definition that differs from the FWPCA would serve no public purpose and would create uncertainty and confusion in the waters where both would apply.

(b) Hazardous Substances: We believe that it is desirable for hazardous substances to be included in this comprehensive

liability and compensation scheme. Although they occur less frequently than oil spills, spills of hazardous materials represent an even more serious problem. The solution should not be to defer consideration of the matter, particularly given Senator Muskie's strong views on the subject.

We do not believe that any amount of study will change the fact that a fee scheme based on toxicity -- whether we try it now or in five years -- will be extremely complex to administer and difficult to enforce. In order to have a manageable system, it would seem, at least initially, that hazardous substances will have to be taxed on a volume basis. That is how it is done now in the states of Florida and New Jersey. We recommend that a fee per barrel (or the equivalent) be imposed on all transfers of hazardous substances for carriage on ships and barges; Congress may want to consider taxing land carriage transfers as well.

While we believe that hazardous substances should be incorporated into the Superfund, some members of Congress have taken the position that the subject is too complex and unknown for this Congress to address in legislation. At a minimum, hearings should be held to discover if that truly is the case or if it is, after all, practical to include them in the legislation now. We urge the committee to remain open to the idea of including hazardous substances in the bill until the interagency task force submits its report on the subject in April, and to schedule hearings as

soon as possible. In this connection, we note that the Administration apparently intends to send up draft legislation to cover hazardous substances in early May.

#### 4. Preemption

The environmental organizations would prefer a Superfund bill based on a policy of cooperative federalism over one that totally preempts state laws. Where certain provisions of state law are stronger than the proposed federal law, preemption would seem to conflict with one of the basic policies underlying Superfund legislation -- to expand and strengthen the laws governing oil spill liability. No area of this country should find itself with less protection after the Superfund legislation has passed.

Different states may have different needs and priorities. It seems that states should be able to make the judgment that protection of their coastlines is crucial to their tourist or fishing industries, or that it is so important to them for other reasons that it outweighs the risk of reduced business activity and/or higher prices.

Another important argument against totally preempting the states is that they are probably better able and more willing to respond to small but more frequently occurring spills. While a federal fund is essential for handling catastrophic spills, such as the Amoco Cadiz, several states have expressed concern that it would be of almost no help in dealing with small spills and discharges. State funds may provide a more accessible means of



recovery for citizens and local governments.

The environmental organizations we represent have opposed preemption. We recognize that those on both sides of the preemption issue feel very strongly. However, it is imperative that this country not go another year without this legislation. Therefore, I would like to present two suggestions for compromise.

The first suggestion is that the legislation not immediately preempt the states, but instead require a study of how state funds and Superfund are working, with a report due in two years. Then at the end of two years the issue could be decided on a solid factual basis. If the federal legislation were strong and comprehensive and was working well in practice, the environmental organizations would probably support eventual preemption. We are very hesitant to have state laws that are presently working preempted before the federal law is fully implemented and has proven itself in practice. It could take several years before a federal law that looked good on paper became fully and effectively operational.

A second compromise would be to have the federal legislation preempt the state laws, but on the explicit understanding that the states would be agents of the federal government in the administration of the Fund, particularly for smaller spills. Since the Fund would be operated on the state level, up to some specified dollar limit, it would be more accessible. Very importantly, a state could ensure that adequate response is made to small spills. On the other side, the industry should be satisfied because the law

would be uniform throughout the country. Having the single, large fund would ensure that there would be sufficient money available to handle a very large spill should one occur anywhere in the United States. Yet, states would retain sufficient control to ensure that the law is properly enforced and that their citizens are compensated for all damages they suffer from any spill, large or small.

We could not support this compromise unless the federal law was environmentally sound and covered hazardous materials. While we are hesitant to preempt the state laws before the federal plan has proven itself in practice, we think that some of the objections to preemption could be taken care of by this proposal.

#### 5. Recoverable Damages

(a) Public Recovery for Damage to Natural Resources: Another area we consider to be extremely important involves the types of damages to natural resources for which a spiller will be held liable. First of all, I am very pleased to see that the bills introduced this session, unlike H.R. 6803, contain a broad definition of natural resources. We would, however, like to see land, air and water added to that definition so that it reads:

"Natural resources" includes fish, wildlife, biota, land, air, water, and other such resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled by the United States (including the resources of the fishery conservation zone established by the Fishery Conservation Act of 1976), any State or local government, or any foreign government.

The environmental organizations believe that the measure of damages recoverable by the government as trustee should not be limited to "economic value" in a strict sense, nor by the sums that can be spent to restore or replace resources. We are afraid that a species which is not commercially harvested might not be covered by the House bills. We are not asking for punitive damages, but only that the public be compensated for very real loss. Resources that have no "commercial" value as such have a value to the public, and if they are destroyed as the result of a spill, the public should be compensated for the loss. I do not think any of us would want to argue that if, for example, a discharge of oil wiped out a population of whooping cranes, the spiller would owe nothing simply because there was no established market for cranes. In this connection, we strongly support the substance of a provision offered last session by Senator Chaffee as an amendment to Sections 5(a)(9) and 5(e)(1)(A) of S.2083. That amendment would, among other things, mandate research on the valuation of damaged natural resources, including measures of damage based on units of affected area or resource. The entire amendment is set out as an appendix to this testimony.

Secondly, the measure of damages should not be limited by the sums that can be spent to restore or replace resources. As the bills are presently worded, the spiller could argue that if the resource destroyed could not be replaced, there is no recoverable

damage. We do not think that the industry would raise any serious objection to the addition of a provision allowing the trustee to expend recovered money to purchase other areas or to improve the marine environment generally if some of the destroyed resources are truly irreplaceable. While this could perhaps be read into the bills, it should be made explicit.

(b) Citizen Suits: It is crucial that claims to recover for natural resource damage be filed in order to ensure that proper prevention and cleanup efforts will be made and that money will be available to restore damaged areas. Therefore, it is our position that any Superfund legislation should provide some assurance that the government official to whom the "trust" responsibilities are delegated will act. We think that a provision should be included authorizing citizen qui tam actions to recover for natural resource damage if the trustee does not make a claim. Such a provision would provide an incentive for responsible officials to fulfill their responsibilities. We suggest the following components:

(1) Ten days after a spill, any citizen could send a letter to the Secretary, announcing the intention to bring a qui tam action. The letter would have to state where the suit would be brought, its legal basis, and a description of the damages; (2) If the trustee does not bring an action within thirty days of receiving the letter, the citizen could bring an action; (3) The courts would have the power to consolidate such suits, or to designate one proper plaintiff; (4) The trustee would have the right to

take over the suit at any time, with the payment to the plaintiff of costs and attorneys' fees; (5) A successful plaintiff could be awarded costs and attorneys' fees.

(c) Private Claims for Loss of Use of Natural Resources:

Any damage formulation must allow claimants to recover for damage to their subsistence use of natural resources, whether or not they are wholly or partially dependent on subsistence use, and even if their loss is not considered "economic" by traditional definition. The present formulation of recoverable damage in both bills is in terms of economic loss. While they might be interpreted to cover loss of subsistence use, this should be spelled out clearly. Such a provision should provide for recovery for loss of natural resources used for "food, fuel, clothing, or other subsistence uses."

An adequate damage recovery provision must also be available for those whose incomes depend in part on natural resources. H.R. 85 requires that an injured person derive at least 25% of his or her income from activities that utilize the impaired property or natural resource in order to make such a claim. This would allow a spiller to escape from paying for damages it should be responsible

for. Loss of earnings is none the less real because a claimant is not totally dependent upon the lost income. Therefore, we support H.R. 29 in this regard, since it omits the 25% minimum requirement for claims for loss of income or earning capacity.

6. Procedures for Settlement

Both bills do provide some assurance that claims made against the Fund will be settled fairly. Under section 107(g)(1) of H.R. 85 and of H.R. 29 the Secretary is required to establish uniform procedures and standards for the appraisal and settlement of claims against the Fund. Unfortunately, there is no assurance that claims settled directly with the spiller will be handled in a fair and reasonable manner.

Both bills require that claims first be presented to any designated spiller, and mandate at least a sixty day waiting period before a claim can be made to the Fund. These provisions may result in claimants settling for less than they are entitled to, due to immediate financial hardship or simply because of the unequal bargaining power of the parties. The administrative agency should have supervisory responsibility over the settlement of all claims. We suggest that boards of arbitration of disputes be available,

If injured persons are, in fact, going to be required to wait sixty days before presenting their claims to the Fund itself, then

the law should provide an interest free loan from the Fund in cases of extreme hardship. If a spiller does not settle and the Fund pays the claim, interest should be charged to the spiller from the date the claim is originally made, as well as administrative and investigative costs and attorneys' fees. All of these provisions would help encourage prompt, fair settlement.

7. Class Action Suits

Class action suits should be provided for specifically in the Superfund legislation. The mechanism proposed in H.R. 85 and H.R. 29 is a very good one. Both bills would authorize the Attorney General to bring a class action, but if he does not do so, any member of the class may maintain the suit.

The environmental organizations also think it would be useful to ease the notice requirements for a class action suit. Section 103(d) of both bills provides that if the membership of the class exceeds 1,000, notice in local newspapers is sufficient to satisfy requirements of Rule 23(C)(2) of the Federal Rules of Civil Procedure. While we recognize this as a significant step in the right direction, we would prefer a provision which would permit the notice requirements to be fulfilled by publication if the class were over one hundred. Such a provision would help make the maintenance of class actions economical and practical.

#### 8. Incentives to Report and Cleanup Spills

The Superfund legislation should require that polluters report spills promptly and provide strong inducements to ensure that they do, for it is only through such prompt reporting that adequate cleanup measures can be taken and liability properly attributed to the spiller. Both bills introduced in the House this session limit the penalty for not reporting to a maximum of \$10,000 or one year in jail or both. This financial penalty is not stiff enough to be useful, and we should not delude ourselves that prison sentences will be imposed except in the most egregious circumstances. A penalty of \$100,000 or one year in jail should be imposed in order to encourage all spillers to report. If a penalty is smaller, the person responsible for a spill will weigh the advantages of not reporting and the possibility of avoiding capture against the small penalty.

There should also be a provision that any person who does not comply with the reporting requirements will not be able to invoke the various statutory exemptions from liability or the liability limits. In other words, failure to report a spill would be added to gross negligence and wilfull misconduct in §104(b) of the bills as bases for losing liability limits and exemptions.

We are pleased that both bills allow a spiller credit against its liability limit for its own cleanup expenses. The knowledge



that it can recover for expenses incurred over its liability limit should encourage a spiller to act quickly and efficiently.

The environmental organizations think it is extremely important that operators or owners of major facilities be required to submit detailed information regarding such factors as their containment and removal equipment, the trained personnel available within one hour of discharge to operate that equipment, and routine steps taken to prevent and mitigate the impacts of discharges. There is no such provision in either bill.

9. Research, Equipment and Training

Any Superfund bill should provide additional funds for research into methods of preventing, containing, and cleanup of spills; equipment and supplies; and training of spill response teams. The state of knowledge regarding fates and effects of oil and hazardous substances on the marine environment remains limited. Cleanup equipment, techniques, and strategies are still inadequate to the task. We do not have enough spill response teams or sufficient equipment. Training for spill response personnel needs to be increased. Yet, H.R. 85 contains no provision at all for research funding. H.R. 29 represents a modest effort to meet this need, as it does allow for expending a maximum of \$10 million per year for research, but only after appropriation in a separate act. We urge that the legislation provide a set sum each year to be expended from the Fund for research, equipment and training, and that the Fund be allowed to grow by that

additional amount before the levy is stopped.

10. Size of the Fund

The bills propose a levy of 3 cents per barrel and a fund of \$200 million. Since the Fund will have the authority to borrow from the Treasury on an interim basis if its assets are insufficient to cover current claims for compensation, \$200 million may be adequate. We would note, however, that the Trans-Alaska Pipeline Act, 43 U.S.C. §1653, which established a liability and compensation plan to cover the various elements of the Alaska Pipeline and the delivery of north slope oil to the lower 48 states in 1973, provides for a levy of 5 cents per barrel, and a fund of \$100 million. Superfund legislation would eliminate those provisions of the Trans-Alaska Pipeline Act creating such a fund. If \$100 million is what Congress felt was reasonable to cover oil pollution liability just for one portion of the country six years ago, a larger fund for the entire country, including OCS activities, is appropriate. We would suggest that the fund be allowed to float as high as \$400 million, and substantially higher if hazardous substances are included. If fees are levied on hazardous substances as well as oil, the levy of 3 cents per barrel on oil should be sufficient.

11. Area of Application

The Federal Water Pollution Control Act applies to all waters of the United States, including nontributary waters such as ponds

and intra-state bodies of water. It would be desirable for the Superfund legislation to have the same area of application, but it is unclear whether the House bills do so. This could be remedied easily. The result of having two different definitions would be overlapping jurisdiction between Section 311 and Superfund in some waters and exclusive Section 311 jurisdiction in other areas. This, of course, could cause considerable and unnecessary confusion and inefficiency.

#### 12. Related Penalties

Penalties to be paid into the Superfund should include all oil pollution and -- if they are covered in the new legislation -- all hazardous substances penalties. These could come from such sources as the FWPCA, §311(b)(5), the OCSLA Amdts., §312, Intervention on the High Seas Act, §12, Oil Pollution Act of 1961, §7, Deepwater Port Act, §311, and other statutes.

#### 13. Limitation of Liability Act

The environmental organizations strongly support the express repeal of the Federal Limitation of Liability Act of 1851, 46 U.S.C. 6183(c), provided for in section 104(j) of H.R. 85 and section 104(i) of H.R. 29.

#### 14. Coverage for Canadians

The Trans-Alaska Pipeline Fund provides coverage to Canadians who suffer injury from spills. H.R. 85 and H.R. 29 would supercede the TAPS Fund, yet neither would specifically cover Canadians.

We think this defect should be remedied.

15. Citizen Participation in Rulemaking

Oil spills and hazardous substance liability regulations will be of great interest to many citizens and organizations. We urge that adequate provision be made for public participation in the rulemaking process, and that the costs of such participation be reimbursed when it can reasonably be expected to promote a full and fair determination of the issues. When citizen groups participate in agency proceedings, they often draw attention to facts, arguments and perspectives that would not be put forward by other parties. Such participation also contributes to public understanding and acceptance of final agency decisions.

16. Attorneys Fees

The Superfund legislation should contain a provision for attorneys' fees and costs to be awarded a claimant who prevails on review in the Court of Appeals. This would both reduce the number of frivolous or insubstantial appeals by industry, and assist those claimants who otherwise might not have the resources to obtain final vindication of their rights. We also suggest that the bill provide attorneys' fees and costs to claimants who successfully apply to the Fund for compensation.

17. Subpoena Power

It would seem to be essential for the agency that administers the Fund to have subpoena power. This is not provided for in the bills.

18. Administration of the Fund

We believe that the Department of Transportation is not the most appropriate agency to administer the proposed plan. Certain divisions of DOT have other and possibly conflicting responsibilities relating to oil pollution. The United States Coast Guard, in particular, has cleanup and enforcement responsibilities under various U.S. laws and would itself be making claims against the Fund. The National Oceanic and Atmospheric Administration (NOAA), the agency to which Congress has given direct responsibility for the oceans, is logically the government agency which should administer the Fund and make the decisions as to compensation and liability.

APPENDIX

Chaffee Amendment, §5(a)(9), S.2083:

"Subject to such amounts as are provided in appropriations Acts, the fund shall be available for costs of research related to the purposes of this Act and section 311 of the Federal Water Pollution Control Act, not to exceed \$10,000,000 per fiscal year, to be performed by Federal agencies including the Environmental Protection Agency, the Fish and Wildlife Service, and the National Oceanic and Atmospheric Administration. Such research shall include, but not (be) limited to (A) development and refinement of protocols to determine the type and extent of short and long term injury or loss of natural resources, (B) development and refinement of the best available procedures to identify the value of injured or lost resources, (C) laboratory or field research on the effects of oil on living and non-living resources that will provide additional scientific basis for damage assessments, and (D) research on minimizing the damage caused by spill control, dispersal and removal operations.

The President, acting through the Administrator of the National Oceanic and Atmospheric Administration, the Administrator of the Environmental Protection Agency, and the Director of the Fish and Wildlife Service, not later than two years after the enactment of this Act, shall promulgate regulations for the assessment of damages for injury to, destruction of, or loss of natural resources resulting from a discharge of oil for the purposes of this Act and section 311 of the Federal Water Pollution Control Act."

Such regulations shall specify (i) standard procedures for simplified assessments requiring minimal field observation, including establishing measures of damages based on units of discharge or units of affected area, and (ii) alternative protocols for conducting assessments in individual cases to determine the type and extent of short and long term injury, destruction, or loss. Such regulations shall identify the best available procedures to determine the type and extent of short and long term injury, destruction, or loss."

"Such regulations shall identify the best available procedures to determine such damages, including both direct and indirect injury, destruction, or loss and shall take into consideration factors including, but not limited to, replacement value, use value, and ability of the ecosystem or resource to recover.

Such regulations shall be reviewed and revised as appropriate every two years."

STATEMENT OF THE NATIONAL RECYCLING COALITION, INC.  
BEFORE AN OVERSIGHT HEARING OF THE SUBCOMMITTEE ON  
TRANSPORTATION AND COMMERCE, HOUSE COMMITTEE ON  
ON INTERSTATE AND FOREIGN COMMERCE, ON THE RESOURCE  
CONSERVATION AND RECOVERY ACT

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March, 1979

My name is Clifford P. Case, III. I am the President of the National Recycling Coalition, Inc., 45 Rockefeller Plaza, Room 2350, New York, New York 10020.

The Coalition is a non-profit tax-exempt group made up of over 15 major environmental, labor, business and civic organizations, including the United Auto Workers, the Amalgamated Clothing and Textile Workers Union, the League of Women Voters of the United States, the National Audubon Society and the Sierra Club. The Coalition's goal is to increase recycling substantially in this country, so as to realize its multiple benefits: conservation of resources and energy, reduction of waste, lessening of pressures for exploitation of wild areas, and creation of jobs, especially in depressed urban areas.

The Coalition is appearing before this oversight hearing on the implementation of the Resource Conservation and Recovery Act because of its interest in the full and effective implementation of one section of RCRA, Section 6002.

Section 6002 requires the federal government, states using federal funds for procurement, and contractors

doing business with both, to give a preference in purchasing to recycled products. Specifically, all federal agencies that have the responsibility for drafting or reviewing specifications for procurement are required, on or before April 21, 1978, to review and revise their specifications to eliminate any exclusion of recovered materials, to eliminate any requirement that the product involved is composed exclusively of virgin material, and to require reclaimed materials to be used, to the maximum extent possible without jeopardizing the intended end use of the item.

In addition, on or before October 21, 1978, each procurement agency (a term which includes state agencies and private contractors in the addition to federal agencies) is required to buy items composed of the highest percentage of recovered materials practicable for all purchases over \$10,000, so long as the items sought to be purchased are available within a reasonable period of time and at a reasonable price, and meet reasonable performance standards, and a satisfactory level of competition can be maintained.

Section 6002 demonstrates the intent of the Congress to use the purchasing power of the federal government, and of other levels of government and private contractors, to the extent federal funds are used, to assist in meeting the overall goals of RCRA: conservation of resources,



elimination of waste and alleviation of the hazardous environmental and social consequences of too much garbage. In the words of the Act, "the problems of waste disposal. . . have become a matter national in scope and in concern and necessitate Federal action. . . to reduce the amount of waste and unsalvageable materials and to provide for proper and economical solid-waste disposal practices." The Congress also found in the Act that "millions of tons of recoverable material which could be used are needlessly buried each year," and that "the recovery and conservation of such materials can reduce the dependence of the United States on foreign resources and reduce the deficit in its balance of payments."

Use of the federal government's purchasing power to assist in achieving RCRA's goals by increasing recycling is by no means irrational, without precedent, or inconsistent with other federal policies in this area. In the first place, the federal government is a major buyer: its purchases amount to approximately \$50 billion each year. In addition, federal purchase specifications and practices are often looked to by others, both in and outside of government, for guidance. Thus federal purchasing practices can have a definite impact. Recognition of the possible impact of federal purchasing has led the Congress to use purchasing as

a tool to carry out federal policies in areas totally distinct from increasing recycling, such as aid to small business, minority enterprise, and firms employing the handicapped.

Also, the Subcommittee should be aware that the requirements of Section 6002 do not stand alone, but are part of an overall policy of increasing recycling which affects private industry as well as the federal, state and local governments. For example, states are required by the Energy Policy and Conservation Act to include programs for increased purchase of recycled products in their energy plans; the Interstate Commerce Commission has been directed to assess the possibly discriminatory impact of freight rates on transport of scrap for recycling under the Railroad Revitalization and Regulatory Reform Act; and last fall's energy legislation both provided tax incentives for private investment in recycling equipment and required that recycling targets be fixed for energy-intensive industries to aid in conserving energy.

Unfortunately, in spite of the fact that the use of federal purchasing to increase recycling makes sense on its own and is consistent not only with the overall goals of RCRA but with the other federal programs referred to above, and in spite of the fact that federal purchasing power has been used with success in areas other than recycling, I must

report to this Subcommittee that the federal agencies with responsibility for carrying out the mandate of Section 6002 have either outrageously neglected their duties or scorned them directly. It is our hope that by making this situation clear to this Subcommittee, to the Congress as a whole and to the American people, this sad state of facts can be changed.

Five federal agencies are involved in the implementation of Section 6002 of RCRA. They are the General Services Administration and the Department of Defense, which together are responsible for the major portion of actual purchasing done by the federal government; the Government Printing Office, which fixes the specifications for all printing and writing papers used by the government; the Environmental Protection Agency, which has the responsibility for establishing guidelines for the purchasing agencies to use in carrying out their responsibilities under Section 6002; and the Office of Federal Procurement Policy, which is charged with the responsibility of co-ordinating federal action to comply with Section 6002. As of today's date, none of these agencies has effectively carried out its responsibilities under Section 6002, and GSA, DOD, and GPO are in direct violation of the specific time schedules set forth in the law for revising specifications and beginning

to purchase recycled products. I will review the records of each agency in turn.

First, as to the Government Printing Office. GPO's policy of non-compliance with Section 6002 is perhaps the clearest to see, because GPO has taken the trouble to write it down. To our knowledge, the most recent revision of the federal government's paper specification standards was issued in April, 1977 by the Joint Committee on Printing, which oversees the operations of GPO. These specifications did not contain any requirement that reclaimed fiber be included in the various papers covered by the specifications, and this omission was not accidental. Upon the recommendation of GPO staff, the Joint Committee stated in issuing these specifications that "no project to establish reclaimed material percentages in these Standards is deemed necessary or is currently envisioned". In other words, while Section 6002 mandates that federal product specifications contain the maximum percentage of reclaimed materials practicable, GPO does not intend to comply with the law. No clearer example of a deliberate flouting of Congressional intent could be imagined.

This action is, I may say, consistent with GPO's actions in prior years with respect to the use of recycled paper. Both before and after passage of RCRA, GPO has taken no steps whatsoever to encourage such use, and in fact has

discouraged others from doing so as well. Why GPO has a vested interest in the use of virgin paper is difficult to say, but it seems clear from its actions that it believes that it does. In view of GPO's intentional non-compliance with RCRA, the question might arise in the minds of Subcommittee members whether it is Congress or GPO that makes the laws.

The situation with respect to the General Services Administration is less cut and dried than with GPO, but there is still quite obvious non-compliance with Section 6002. So far, GSA's main action in implementing RCRA has been to withdraw certain paper product specifications which it had been using since approximately 1971. These specifications set forth specific requirements for various types of waste content in these products. The basic division was between post-consumer waste (meaning that which results when a product is used and thrown away), and manufacturing wastes (the wastes which are generated during the manufacturing process itself, prior to the use of the product).

The significance of this distinction is that most manufacturing wastes are already being re-used, because they are easily collected, uniform in quality and free of contaminants. (Envelope clippings are a good example.) Post-consumer waste, on the other hand, is largely not being

reused today: it makes up the bulk of the solid waste crisis which RCRA was supposed to help solve.

Since post-consumer waste is the heart of the problem, one might have thought that in response to RCRA, GSA would have acted to strength its dual requirement of post-consumer and manufacturing waste content in its products, so as to assist in meeting RCRA's goals of eliminating the "rising tide of waste in this country." Surprisingly, however, GSA took exactly the reverse step: it eliminated any distinction between post-consumer and manufacturing wastes in its paper products. What this means is that a manufacturer can satisfy GSA's present waste requirements by using solely manufacturing wastes and no post-consumer wastes, a clear backward step as compared to the situation before Section 6002 became law. This bizarre result is required according to GSA, by the definition of "solid waste" in RCRA. We have, however, carefully reviewed the Act and find GSA's interpretation incomprehensible, totally inconsistent with RCRA's clearly expressed intent and in no way required by its words.

Beyond its retrogression in the area of paper products, GSA has not to our knowledge revised any of its other product specifications to require any percentages of reclaimed or recycled materials. It has, however, requested

its suppliers to state what percentages of reclaimed material they could provide in their products, and what percentages of reclaimed materials they are presently supplying. This approach, which is of course purely voluntary and highly selective, based solely on the present suppliers to GSA, seems destined merely to maintain the status quo. We suspect that all GSA intends to do is see what percentages of reclaimed material are presently being supplied, if any, and make those low percentages the maximums that are required. We can only characterize GSA's actions as a weak-minded and ineffectual response to the vital problem that Section 6002 was intended to address.

Insofar as the Department of Defense is concerned, it again appears that very little if any progress has been made. DOD has, we understand, only reviewed approximately 20% of all its product specifications, in spite of the April 21, 1978 deadline for review of all specifications. Moreover, during the course of this review the only thing that is happening is the elimination of any requirement that reclaimed material be excluded. In spite of the clear requirement of Section 6002, no mandatory percentages for reclaimed material content are being added to these specifications.

Needless to say, any purchase by the Department of Defense of any recycled products, as of now, is purely accidental. Once again, Section 6002 and the Congressional intent embodied within it are being almost entirely ignored.

The Environmental Protection Agency does not have any statutory obligation to promulgate or revise specifications under Section 6002 nor does it have any direct purchase responsibilities which are covered by Section 6002. It does, however, have the obligation to issue guidelines to assist other agencies in their observance of the requirements of Section 6002.

Unfortunately, EPA cannot be said to have taken its responsibilities seriously under Section 6002. The resources it has devoted to the fulfillment of its obligations are inadequate to the task, and the policies it has adopted in carrying out its responsibilities are timid and ineffectual. Thus far, EPA has not issued any guidelines for any product whatsoever and it is planning to issue guidelines in only four product areas at the present time. The products that are to be covered by the presently proposed guidelines are: (1) fly ash; (2) paper products; (3) composted sewage sludge; and (4) construction materials.

According to discussions with EPA staff, we understand that the proposed guidelines on use of fly ash



may be published in the Federal Register in approximately six months, the proposed guidelines on paper products may be published in the Federal Register in approximately nine months, and the proposed dates for publication of the guidelines for composted sewage sludge and construction materials, are not certain at this time.

EPA's reason for stopping after four products, even though the government's purchases cover many thousands of different kinds of products, is not obvious in light of their broad obligations under the Act. To us, as outside observers, it would appear that their action stems from first, inadequate resources being devoted to the task of preparing guidelines, as compared with EPA's other obligations, and second, a recognition that some of these guidelines may be controversial. EPA is, in other words, apparently afraid to get into a fight with other agencies over Section 6002. Whether these factors justify a failure by EPA to carry out Congress's directives in Section 6002, I leave it to this Subcommittee to decide.

Since no guidelines have yet been published by EPA, it becomes difficult to comment with confidence on what they will contain when they are published. However, we believe there is reason for deep concern on this issue, based

upon our discussions with EPA staff and review of draft reports on possible guidelines which have been made available to us. Of particular concern is the fact that EPA appears to be accepting GSA's position with respect to the definition of waste to be included in paper products. As already noted, GSA has reverted from a two-step definition, which differentiates between post-consumer waste and manufacturing waste, in order to promote greater use of post-consumer waste, to a single definition, in which both manufacturing and post-consumer wastes are combined.

We had hoped that even if GSA adopted this unfortunate position, EPA would at least resist it, so that this country's need for greater reuse of post-consumer waste might be championed by at least one federal agency. Our hopes were apparently in vain.

EPA also appears to be taking an unfortunate position with respect to reporting. It is vital, both for the Congress and the general public, to know the precise effects of any change in product specifications and purchasing so as to determine whether Section 6002 is being properly implemented. If the effect of all federal actions to date is merely to maintain the status quo, as I suspect, then the need for effective remedial action will be obvious. Thus, an important part of any guideline EPA might issue

would be a requirement that data be collected on products purchased, and their waste material content, both before and after implementation of Section 6002.

However, EPA is not planning, we understand, to include in its product guidelines any data collection or reporting requirements whatsoever. Both the Congress and the general public will thus be left in the dark, if EPA has its way, as to what quantities of recycled products are being purchased, what types of waste are being recycled, and how that situation compares with the situation before Section 6002 became law. Again, the reasons for EPA's position with respect to reporting are not clear; perhaps they stem from timidity, or perhaps from an attempt to conceal the fact that nothing is really going on.

Some of the slack in this area could conceivably be taken up by the Office of Federal Procurement Policy, the fifth federal agency involved in implementing Section 6002, which might require submission of information on purchase of recycled products by the various federal agencies, as well as make recommendations for changes in the different agencies' procurement programs. Again, however, it would appear that not enough action is being taken. OFPP does each year collect reports from the various agencies concerning their purchase of recycled products, but it is not attempting strongly enough to increase the inadequate information which

is contained in these reports, nor does it appear to be recommending any increase in the amount of attention the various procurement agencies are devoting to purchasing recycled products and revising their product specifications.

In sum, we at the Coalition think it is fair to say that the federal government's record of implementation of Section 6002 of RCRA is dismal. We believe that this Subcommittee should, in fact, hold separate oversight hearings on Section 6002, so that each of the agencies involved can be called in to justify its action (or inaction) in this area to date. Unless you act in this way, it seems all too likely that a major opportunity to increase recycling, thereby saving energy, protecting the environment and creating jobs, will be lost. We hope that this opportunity will not be missed, and we will most happy to work with you to see that this is so.

We thank you for this opportunity to present the foregoing information on this matter of vital national concern.

## INSTITUTE FOR LOCAL SELF-RELIANCE

Testimony for Hearing on  
Reauthorization of RCRA 1976

Presented By

Jeryl Specter, Waste Utilization Branch

RCRA 1976 was a major step forward in solid waste management for the country. We feel that RCRA funding must be reauthorized this year. However, we feel that more attention must be paid to recycling and waste reduction in order to optimally solve our solid waste management crisis, conserve energy and material resources, and involve community economic development agencies. In a report prepared for the National Credit Office of Dun and Bradstreet it was determined that by the end of the century waste reclamation will become the world's biggest industry (with the exception of agriculture). That's a nice thought but it won't happen until the U.S. sees fit to put some time and effort into the recycling arena or until the U.S. finally realizes that the only way to reduce their dependence on foreign oil and other products is to reuse what we have.

Large scale resource recovery projects have shown a spotty development record to date despite many millions, perhaps over five hundred million dollars of public money spent over the last decade. They are expensive, inflexible and produce relatively small amounts of net energy compared to the recycling of these same resources. Also they provide only one job for every million dollars spent as opposed to one job for every fifteen thousand dollars spent for simpler technological approaches to resource recovery. Small scale recycling is not only a pollution free form of solid waste disposal but it can create jobs, conserve energy, conserve land and trees, stimulate local economic development and teach our country an invaluable lesson of respect for our natural resources.

RCRA was established for these purposes yet very little effort has been devoted to source separation or low technology waste utilization so far. The Institute receives three to five letters a week from city officials and citizen action groups asking for information on how communities can start their own recycling programs. The public is aware of the recycling potential. It is now time for the government to support the efforts of recyclers across the country including two hundred and sixteen city programs, thousands of community based efforts and hundreds of private enterprise recyclers.

RCRA has the capability to build this support. For instance, at the suggestion of the Institute and many community based recyclers RCRA mandated technical assistance will now try to integrate local and community based professional recyclers in the four million dollar program. More can be done.

Support is needed in four areas. Funding of low technology demonstration projects, a national recycling committee composed of interagency representatives, an investment loan fund and a technical magazine. Presently there are very few coordinated outlets for funding of comprehensive recycling projects. Across the country private entrepreneurs are developing source separation and remanufacturing systems that are profitable. Recycling Enterprises, Inc. of Oxford, Massachusetts has been collecting waste glass and selling crushed sorted glass to glass manufacturers at a profit. Fairfield Engineering Co. of Pennsylvania has been collecting the organic waste from the city of Altoona to make into compost and sell to various markets. In Grand Rapids, Michigan researchers showed that the atmosphere already supports recycling and a comprehensive recycling program of up to eighty per cent of the waste stream is potentially possible on an economically viable basis. The list goes on...

Society has to accept simple waste utilization technologies and processes as an alternative waste disposal method and successful demonstration projects are the only appropriate educational tool. They require a very small capital investment but an investment none the less. To date cities for the most part can only attract federal money by adopting new high-technology, capital-intensive systems. Research is needed on alternative systems to determine: economies of scale, best management practices for co-ordinating decentralized and centralized resource recovery plant compatibility and coordinate marketing with industry users, to find cheaper more efficient means of preparing the waste materials for resale and to study recyclings impact on the solid waste problem.

A national recycling committee should be formed to focus attention on the lack of a coordinated national program to increase the recycling of waste materials and decrease wasteful consumption, and to make the public aware of the enormous savings through recycling and to carefully plan for the burning of non-recyclable residues in appropriately scaled energy recovery plants.

Federal resource recovery policy makers have for the most part, shown a close minded attitude toward recyclers. They see large garbage to energy plants as the future solution to the solid waste program. They don't see appropriate technology as a worthwhile tool. A national committee is a needed vehicle to tie the nations recyclers together, to coordinate a group effort so that the scattered but numerous recyclers can have a substantial impact.

A national journal is perhaps the most important task that RCRA could support. Information dissemination is critical in terms of developing up-to-date recycling programs. A program that is working well in Seattle might work just as well in Warwick, R.I. A national journal would sufficiently report on the Seattle program so that Warwick might learn from an article rather than costly experience and time. Machinery used for most recycling operations is simple and usually produced by the recyclers themselves or a small business. The only way for these machines to get publicity or for recyclers to learn about them is by this type of publication. The technical journal could also sponsor a yearly national recycling conference through the four already existing state-wide professional recycling associations (California, Oregon, Washington, Colorado). The journal could also undertake needed research by funding local recycling agencies. Recently the Institute staff completed a preliminary policy research agenda with the help of community based, private enterprise and government recycling experts. But experts from around the nation need forums to develop complete agendas.

We also suggest that an investment loan fund be established to provide capitalization for recycling projects. In California a state program will funnel several million dollars annually to recyclers for just such development. Waste utilization enterprises (those that use recycled materials as a raw material) must also be encouraged through loan and grant programs. A national funding program could be coordinated by an interagency entity composed of current Resource Conservation Committee members.

The nation has been moving more and more in the direction of recycling. Some of the many factors causing this include:

1. Recycling conserves the nation's land and natural resources by lessening the need for virgin resources and landfill space for disposal of post-consumer and industrial waste.

2. Traditional solid waste management systems are becoming more and more costly as new landfills must be located further from densely populated areas, with stringent environmental pollution controls.
3. The siting of new landfills, interjurisdictional arrangements for their use and flow control of solid waste are causing major political and legal problems in many areas of the country.
4. Recycling saves energy in the manufacturing of consumer and industrial products we consume; reduces the nation's need for imported materials; and helps reduce inflation.
5. Jobs are created by utilizing waste as a resource and recycling materials to industry. Local economic development is stimulated by new local industries receiving these materials.
6. New industries have offered the opportunity for hybrid corporate structures involving local development companies and private enterprise.
7. Traditional environmentalists and community activists have focused on recycling as one area where the values and interests of both groups are mutually supported. Several local and national "city-care" conferences have brought representatives together over these issues.
8. Recycling has encouraged local decision-making over solid waste management and economic development issues. Most, if not all, of the municipal programs started since 1968 were initiated by citizen activity.
9. People want to and like to recycle. In 1972, an EPA survey of Metropolitan Housewives' Attitudes Toward Solid Waste Disposal revealed that: "Virtually all metropolitan housewives (90%) express willingness to separate their trash to facilitate recycling. About half feel that such activity should be mandatory rather than voluntary. Were separation of trash required, however housewives claim they would prefer to have it done at the household level rather than pay even a minimal (\$1 a year) fee to the municipality to have it done for them"<sup>1</sup>.
10. Federal and state programs have provided over \$100 million for urban waste technology development over the past decade. EPA will spend another \$45 million in its urban grants program over the next three years for planning. DOE will spend from \$24-45 million for implementation over the next three years. RCRA makes state, county-by-county, source separation planning mandatory if federal funds are being used. The Energy Act of 1978 provides a 10-20% tax credit for investments in recycling equipment. The State of California now has a \$12 million annual grants/loan program for recycling enterprises. DOE is

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<sup>1</sup>Office of Research and Monitoring (EPA-R5-72003)



formalizing a \$300 million loan guarantee and price support program for commercializing waste technologies.

11. Private corporations have made major investments in recycling and waste utilization facilities, including multi-million dollar paper mills, and glass manufacturing facilities which use 100% recycled materials. Corporations have also begun community oriented recycling programs.

By using the RCRA mandate to focus more on recycling, within a few years, with relatively small investments the nation could reap the dividends of more jobs, reduced foreign dependence on oil and of course change Americas' solid waste problem into a solid waste asset. It has the ability to fund projects that neighborhoods, cities and private enterprise can work together on and learn from and profit from. It has the ability to offer a good solution to landfills and in many cases inappropriate centralized resource recovery plants.

[Whereupon, at 12:25 p.m., the subcommittee adjourned.]





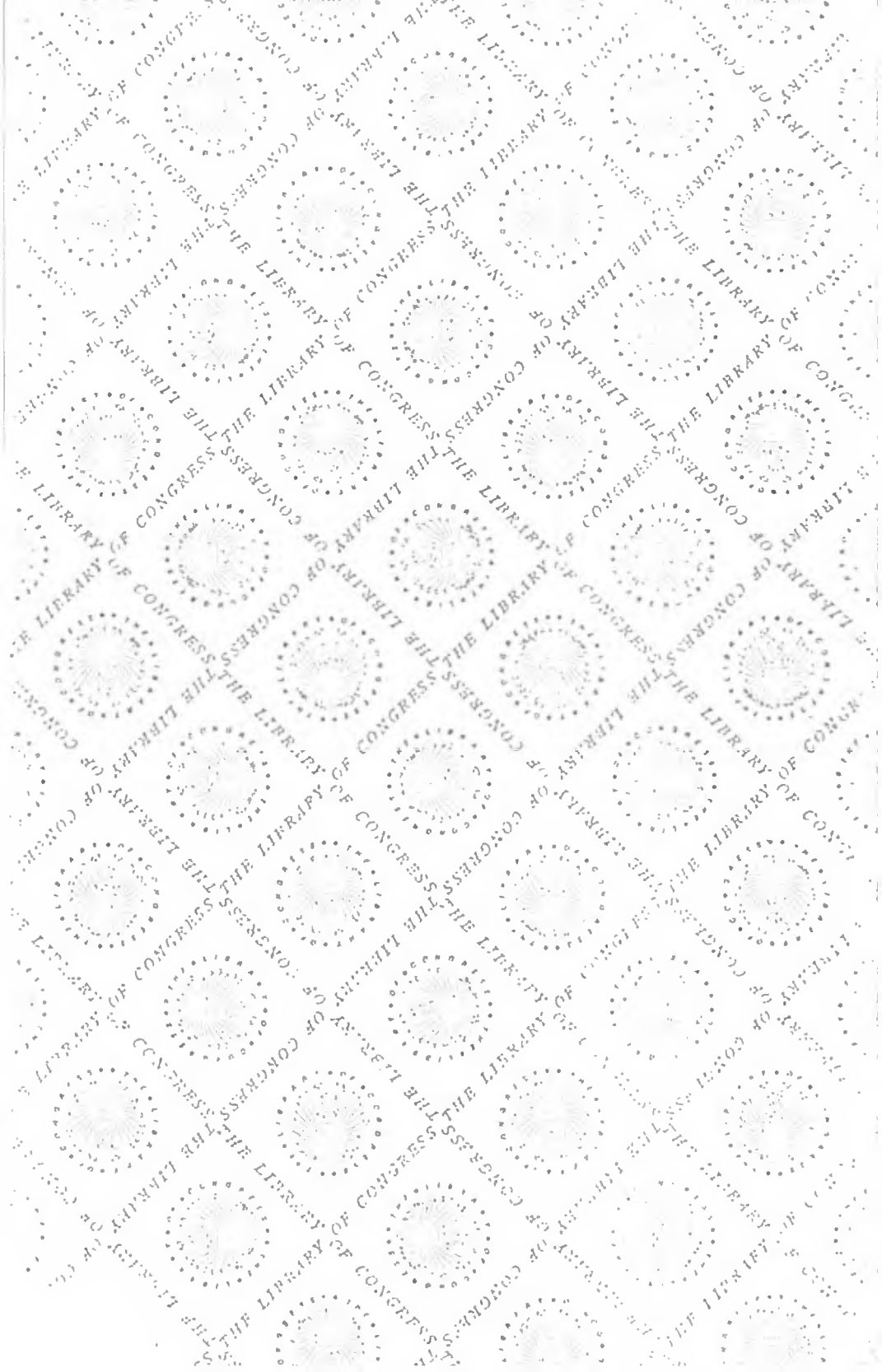


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